

# INFRASTRUCTURAL ARCHITECTURE

*Social Design for the Public Realm in Underground Transit Systems*

By

**Mackenzie Parr**

A thesis submitted in partial fulfillment of  
the requirements for the degree of  
Master of Architecture (M.Arch)

The Faculty of Graduate Studies,  
Laurentian University,  
Sudbury, Ontario, Canada.

© Mackenzie Parr, 2019

**THESIS DEFENCE COMMITTEE/COMITÉ DE SOUTENANCE DE THÈSE**  
**Laurentian University/Université Laurentienne**  
Faculty of Graduate Studies/Faculté des études supérieures

Title of Thesis Titre de la thèse	Infrastructural Architecture: Social Design for the Public Realm in Underground Transit Systems	
Name of Candidate Nom du candidat	Parr, Mackenzie	
Degree Diplôme	Master of	
Department/Program Département/Programme	Architecture	Date of Defence Date de la soutenance April 10, 2019

**APPROVED/APPROUVÉ**

Thesis Examiners/Examineurs de thèse:

Patrick Harrop  
(Thesis Advisor / Directeur(trice) de thèse)

Dr. Thomas Strickland  
(Thesis Second Reader / Directeur(trice) de thèse deuxième)

Professor Brian Lilley  
(External Examiner/Examineur(trice) externe)

Approved for the Faculty of Graduate Studies  
Approuvé pour la Faculté des études supérieures  
Dr. David Lesbarrères  
Monsieur David Lesbarrères  
Dean, Faculty of Graduate Studies  
Doyen, Faculté des études supérieures

**ACCESSIBILITY CLAUSE AND PERMISSION TO USE**

I, **Mackenzie Parr**, hereby grant to Laurentian University and/or its agents the non-exclusive license to archive and make accessible my thesis, dissertation, or project report in whole or in part in all forms of media, now or for the duration of my copyright ownership. I retain all other ownership rights to the copyright of the thesis, dissertation or project report. I also reserve the right to use in future works (such as articles or books) all or part of this thesis, dissertation, or project report. I further agree that permission for copying of this thesis in any manner, in whole or in part, for scholarly purposes may be granted by the professor or professors who supervised my thesis work or, in their absence, by the Head of the Department in which my thesis work was done. It is understood that any copying or publication or use of this thesis or parts thereof for financial gain shall not be allowed without my written permission. It is also understood that this copy is being made available in this form by the authority of the copyright owner solely for the purpose of private study and research and may not be copied or reproduced except as permitted by the copyright laws without written authority from the copyright owner.

## ABSTRACT

There's a certain allure and poeticism to mass transit, from buses, to streetcars, and trains. It's curious that a strictly infrastructural marvel of engineering houses such an honest and diverse application of shared architecture, mutual in it's urban scope. In many ways, the architecture of these utilitarian transit spaces (subways most notably), are comparable in their role to that of the public square, court, or forum. There is an untold architectural relationship within these urban environments between subways as a space of movement, and as a place of activity.

This thesis aims to re-examine subways under this lens. To posit that subways offer more to the urban fabric than a functional vessel for movement, and are indeed vital at providing opportunity for social life to flourish in an urban context. Questions of democratizing space, spatial legitimacy, functionalism, and the dichotomy between space and place, arise when examining these constructs of subterranean infrastructure.

These relationships will be explored by studying and reimagining a particular site along the City of Toronto's subway system, specifically; Spadina Station. It is the intersection of both the University-Yonge Line, the Bloor Line, as well as the terminal to the Spadina Avenue streetcar. The key methods of research for this study include studying, drawing, and photographing the space to better understand it's prescriptive needs, and to inform a modified architectural response and proposal.

Ultimately, this project aims to be didactic in its thinking with regards to infrastructural architecture through proposal work. The core of transit is the people who use it, and it must be understood that these people interact socially with their surroundings, far beyond just the isolated motions of coming and going. We must ask how utilitarian infrastructure can shift it's functional role in cities to reclaim the public realm as a space of communal activity, and shared program.

### *Key Words:*

Public Transit, Urban Infrastructure, Social Architecture, the Public Realm, Subways, Rapid Mass Transit, Station Design, Functionalism, Social Justice, Urban Sociology, Underground Architecture, Toronto, Event Space, Busking, Social Accessibility, Jane Jacobs, Richard Sennett, New York City Subway.

# ACKNOWLEDGEMENTS








I would foremost like to thank my Primary Advisor, Patrick Harrop, for pushing, nudging, and spurring me forward, and always seeing my potential, even in times when I couldn't. In addition, thanks are owed to my Secondary Advisor, Dr. Thomas Strickland, for his ever encouraging optimism and anti-establishmentarianism. I would also like to extend thanks to my loving Parents, for their undying support and patience with me these past six years, as well as my sister, who reminds me to stay true to ones principles, always. Furthermore, this thesis would not have been realized or completed if not for the confidence and inspiration instilled in me, by my friends and fellow colleagues;

*Miranda DiGiacomantonio, Jeremy Upward, Sonia Ekiyor-Katimi, Kiera Hughston, Sahana Dharmaraj, Jenna Lamb, Shannon MacMillan, & Joycelyne Serrano.*

This thesis is lovingly dedicated to the memory of;  
*Stephen Stubbs*  
(1962 - 2016)



TABLE OF CONTENTS

	A Public Thinking of Urban Infrastructure	19
	<i>An Introduction</i>	
	Chapter	
	In Praise of the Underground	27
	<i>A Brief History of Rapid Mass Transit</i>	
	Chapter	
	Questionning Public Legitimacy	35
	<i>A Case Study on the New York City Subway</i>	
	Chapter	
	Infrastructural Sterility	45
	<i>Examining the Greater Toronto Transit System</i>	
	Chapter	
	A New Station Paradigm	59
	<i>The Proposal</i>	
	Conclusion	87
	Bibliography & Further Readings	91

LIST OF FIGURES

[Figure 1]	Page 20	<p><i>Schematic Inclusion of Infrastructural Architecture.</i></p> <p>Kirkham, Michael. n.d. Illustration. Retrieved from [https://www.architectmagazine.com/aia-architect/aiafeature/defined-by-our-infrastructure_o].</p>	[Figure 7]	Page 28	<p><i>Opening of the London Underground.</i></p> <p>Getty, Hulton. n.d. 1890. Photograph. Retrieved from [https://www.theguardian.com/cities/gallery/2014/sep/10/-sp-history-metro-pictures-london-underground-new-york-beijing-seoul].</p>
[Figure 2]	Page 21	<p><i>Panel No.6 of the Pianta Grande Map of Rome.</i></p> <p>Nolli, Giambattista. “Tavola 6.” 1748. Map. Retrieved from [https://www.architectmagazine.com/aia-architect/aiafeature/defined-by-our-infrastructure_o].</p>	[Figure 8]	Page 29	<p><i>Tokyo Metro at Night.</i></p> <p>Getty Images &amp; Three Lions. n.d. 1950. Photograph. Retrieved from [https://www.theguardian.com/cities/gallery/2014/sep/10/-sp-history-metro-pictures-london-underground-new-york-beijing-seoul].</p>
[Figure 3]	Page 23	<p><i>Children Playing in Plaza de Armas, Chile.</i></p> <p>Cazanave, Michelle. “Plaza de Armas.” <i>Flickr</i>. 2006. Photograph. Retrieved from [https://www.flickr.com/photos/michicaze nave/299715414/].</p>	[Figure 9]	Page 29	<p><i>Maintenance of the New York City Subway.</i></p> <p>NY Daily News via Getty Images. n.d. June 6th, 1939. Photograph. Retrieved from [https://www.theguardian.com/cities/gallery/2014/sep/10/-sp-history-metro-pictures-london-underground-new-york-beijing-seoul].</p>
[Figure 4]	Page 23	<p><i>Protestors Gathering in Plaza de Armas, Chile.</i></p> <p>Associated Press. n.d. <i>API</i>Images. September 15th, 1973. Photograph. Retrieved from [http://www.apimages.com/metadata/Index/Chile-Coup-Anniversary/f93c7c78d709479e9e486358fdaeadoe/107/o].</p>	[Figure 10]	Page 31	<p><i>Lunch Rush at Grand Central Station.</i></p> <p>Image by Author. “<i>Grand Central Station.</i>” Photograph. October, 2019.</p>
[Figure 5]	Page 25	<p><i>Night view of Kropotkinskaya Station, Russia.</i></p> <p>Municipal Archives of Trondheim. “Moscow, subway station Kropotkin Gate.” <i>Flickr</i>. 1935. Photograph. Retrieved from [https://www.flickr.com/photos/trondheim_byarkiv/4626503520/in/photolist-83Q8RE-83QDho-83MBvp-83Q8Ro-83Q8RJ-83Maiv-83Maiz-83MBvt-83Q3j5].</p>	[Figure 11]	Page 31	<p><i>Busker in the London Underground.</i></p> <p>Goldthorpe, Sean. “Untitled.” <i>Flickr</i>. October 31st, 2010. Photograph. Retrieved from [https://www.flickr.com/photos/seang88/5353227506/in/photolist-9a3GzY-4Xt6NW-22LLC8Q].</p>
[Figure 6]	Page 28	<p><i>Annotated Map of The World’s Mass Transit Systems</i></p> <p>Union Internationale de Transports Publics. “World Metro Figures, 2018.” 2018. Illustration. Retrieved from [https://www.uitp.org/sites/default/files/cck-focus-papers-files/Statistics%20Brief%20-%20World%20metro%20figures%202018V4_WEB.pdf].</p>	[Figure 12]	Page 36	<p><i>Darius McCollum Mugshot.</i></p> <p>Irving, Adam. “OFF THE RAILS - Official Trailer.” <i>Youtube</i>. April 1st, 2016. Video. Retrieved from [https://www.youtube.com/watch?v=74YfzZoWxqE].</p>
			[Figure 13]	Page 36	<p><i>Darius McCollum Court Appearance.</i></p> <p>Ward, Jesse. n.d. November 28th, 2016. Photograph. Retrieved from [https://www.nydailynews.com/new-york/brooklyn/serial-nyc-transit-thief-hearing-aid-awaiting-trial-article-1.2890150].</p>

[Figure 14]	Page 37	<p><b><i>Massimo Vignelli’s Modernist Map of the NYC Subway.</i></b></p> <p>Vignelli, Massimo. “New York Subway Map.” 1970. Lithograph. Retrieved from [https://www.moma.org/collection/works/89300?artist_id=6155&amp;locale=en&amp;page=1&amp;sov_referrer=artist].</p>	[Figure 21]	Page 47	<p><b><i>Painting of the Don Valley River, Pre-Industrial Toronto, 1855.</i></b></p> <p>Meyer, Mary Hastings. “View of Toronto.” <i>Twitter</i>. 1855. Painting. Retrieved from [https://twitter.com/MarketGalleryTO/status/1070021701772210176].</p>
[Figure 15]	Page 39	<p><b><i>Brass Band Busking in The NYC Subway.</i></b></p> <p>Image by Author. “<i>42nd Street Brass Band.</i>” Photograph. October, 2019.</p>	[Figure 22]	Page 48	<p><b><i>Groundbreaking Ceremonies of the Yonge Street Subway, 1949.</i></b></p> <p>CANADA PICTURES LTD. n.d. <i>Toronto Star</i>. 1949. Photograph. Retrieved from [https://www.thestar.com/news/gta/2019/03/27/toronto-delayed-a-timeline-of-the-citys-many-attempts-to-build-transit.html].</p>
[Figure 16]	Page 39	<p><b><i>Salsa Band Busking in The NYC Subway.</i></b></p> <p>Image by Author. “<i>42nd Street Salsa Band.</i>” Photograph. October, 2019.</p>	[Figure 23]	Page 50	<p><b><i>TTC Logo.</i></b></p> <p>Image by Author. “<i>Logo.</i>” Photograph. October, 2019.</p>
[Figure 17]	Page 40	<p><b><i>Coney Island ‘D’ Train, Morning - One.</i></b></p> <p>Image by Author. “<i>Coney Island ‘D’ Train - One.</i>” Photograph. October, 2019.</p>	[Figure 24]	Page 51	<p><b><i>Dundas Station, Prior to Opening, 1953.</i></b></p> <p>Toronto City Archives. n.d. <i>BlogTO</i>. 1953. Photograph. Retrieved from [https://www.blogto.com/city/2012/12/what_ttc_subway_stations_were_meant_to_look_like/].</p>
[Figure 18]	Page 40	<p><b><i>Coney Island ‘D’ Train, Morning - Two.</i></b></p> <p>Image by Author. “<i>Coney Island ‘D’ Train - Two.</i>” Photograph. October, 2019.</p>	[Figure 25]	Page 52	<p><b><i>Union Station, Prior to Opening, 1953.</i></b></p> <p>Toronto City Archives. n.d. <i>BlogTO</i>. 1953. Photograph. Retrieved from [https://www.blogto.com/city/2012/12/what_ttc_subway_stations_were_meant_to_look_like/].</p>
[Figure 19]	Page 41	<p><b><i>Protest Against Police Brutality in NYC.</i></b></p> <p>Wilson, Saundi. “DSC00508.” <i>Flickr</i>. January 23rd, 2015. Photograph. Retrieved from [https://www.flickr.com/photos/saundiwilson/16162985198/in/photolist-qCgwoA-pVmYnp-qcHGRm-as831S-pVn1mz-bSqMzp-bDw4Lo-bSqLtn-bDw3Zq-bDw4qd-bbh3C-bDw4AN-bSqL9M-bSqMNa-bSqLHT-bSqLF4-bZasyL-pg2c7M-q7Lr3X-fURTQN-pVd2Cb-qcHG2f-qauFHS-ronU9-pVn24X-bZaraA-avRNggq-avP6WM-avP43X-3j9VVd-pifpcU-avP6qk-zVA6x1-zVA5ro-zghyeM-zVz7T9-zVxHdh-Ae8a3X-AaRREy-zg8xGy-q2vGnL-rYmFvh-savWLM-s6GxcQ-oJGiff-osePG2-rYtDr2-qfgmM4-q2CUtM-q2Emm4].</p>	[Figure 26]	Page 52	<p><b><i>Union Station, Prior to Opening, 1953.</i></b></p> <p>Toronto City Archives. n.d. <i>BlogTO</i>. 1953. Photograph. Retrieved from [https://www.blogto.com/city/2012/12/what_ttc_subway_stations_were_meant_to_look_like/].</p>
[Figure 20]	Page 43	<p><b><i>NYC Subways in Motion</i></b></p> <p>Image by Author. “<i>In Passing.</i>” Photograph. October, 2019.</p>	[Figure 27]	Page 54	<p><b><i>Highway 407 Station Coloured Glass Skylight.</i></b></p> <p>Image by Author. “<i>Skylight.</i>” Photograph. October, 2019.</p>

[Figure 28]	Page 54	<b><i>Pioneer Village Station Hallway.</i></b>  Image by Author. “ <i>Empty.</i> ” Photograph. October, 2019.	[Figure 37]	Page 64	<b><i>Spadina Station Caribou Quilt.</i></b>  Image by Author. “ <i>Caribou.</i> ” Photograph. October, 2019.
[Figure 29]	Page 57	<b><i>GO Train Commuters Waiting for the Train.</i></b>  Image by Author. “ <i>The Journey Home.</i> ” Photograph. October, 2019.	[Figure 38]	Page 65	<b><i>Spadina Station First Nations Totems.</i></b>  Image by Author. “ <i>Totems</i> ” Photograph. October, 2019.
[Figure 30]	Page 57	<b><i>Commuters at Bloor - Yonge Station.</i></b>  Image by Author. “ <i>Bloor - Yonge.</i> ” Photograph. October, 2019.	[Figure 39]	Page 65	<b><i>Spadina Station Bus Terminal Windows</i></b>  Image by Author. “ <i>Familiar</i> ” Photograph. October, 2019.
[Figure 31]	Page 60	<b><i>Spadina Station Entrance Building.</i></b>  Swanson, Louis. n.d. 1975. Photograph. Retrieved from [https://transit.toronto.on.ca/photos/subway-rt-stations/2-bloor-danforth-subway/bloor-danforth-subway-14-spadina-197510.html].	[Figure 40]	Page 67	<b><i>Spadina Station Entrance Proposal Morning Habitation</i></b>  Image by Author. “ <i>Spadina Station Entrance Proposal - One.</i> ” Illustration. April, 2019.
[Figure 32]	Page 62	<b><i>Sussex Avenue &amp; Spadina Avenue.</i></b>  Image by Author. “ <i>Sussex &amp; Spadina.</i> ” Photograph. December, 2019.	[Figure 41]	Page 68	<b><i>Spadina Station Entrance Proposal Afternoon Habitation</i></b>  Image by Author. “ <i>Spadina Station Entrance Proposal - Two.</i> ” Illustration. April, 2019.
[Figure 33]	Page 62	<b><i>Robert Street Park, Looking Towards Downtown.</i></b>  Image by Author. “ <i>In The Distance.</i> ” Photograph. December, 2019.	[Figure 42]	Page 69	<b><i>Spadina Station Entrance Proposal Evening Habitation</i></b>  Image by Author. “ <i>Spadina Station Entrance Proposal - Three.</i> ” Illustration. April, 2019.
[Figure 34]	Page 63	<b><i>Trinity-St.Paul United Church Bell Tower.</i></b>  Image by Author. “ <i>The Bell Tower.</i> ” Photograph. December, 2019.	[Figure 43]	Page 71	<b><i>Spadina Station Dépaneur Proposal Morning Habitation</i></b>  Image by Author. “ <i>Spadina Station Dépaneur Proposal - One.</i> ” Illustration. April, 2019.
[Figure 35]	Page 63	<b><i>Bloor Street Looking West.</i></b>  Image by Author. “ <i>Bloor Street West.</i> ” Photograph. December, 2019.	[Figure 44]	Page 72	<b><i>Spadina Station Dépaneur Proposal Afternoon Habitation</i></b>  Image by Author. “ <i>Spadina Station Dépaneur Proposal - Two.</i> ” Illustration. April, 2019.
[Figure 36]	Page 64	<b><i>Spadina Station Newsstand &amp; Confectionary</i></b>  Image by Author. “ <i>The Newsstand.</i> ” Photograph. December, 2019.			

[Figure 45]	Page 73	<b><i>Spadina Station Dépaneur Proposal Eveeneing Habitation</i></b>  Image by Author. “ <i>Spadina Station Dépaneur Proposal - Three.</i> ” Illustration. April, 2019.	[Figure 53]	Page 84	<b><i>Spadina Station Proposal East-West Site Section.</i></b>  Image by Author. “ <i>Spadina Station Section - One.</i> ” Illustration. April, 2019.
[Figure 46]	Page 75	<b><i>Spadina Station Living Hallway Proposal Morning Habitation</i></b>  Image by Author. “ <i>Spadina Station Living Hallway Proposal - One.</i> ” Illustration. April, 2019.	[Figure 54]	Page 84	<b><i>Spadina Station Proposal North-South Site Section.</i></b>  Image by Author. “ <i>Spadina Station Section - Two.</i> ” Illustration. April, 2019.
[Figure 47]	Page 76	<b><i>Spadina Station Living Hallway Proposal Afternoon Habitation</i></b>  Image by Author. “ <i>Spadina Station Living Hallway Proposal - Two.</i> ” Illustration. April, 2019.	[Figure 55]	Page 89	<b><i>Woman Asleep on the Bloor Danforth Line, Crossing the Don River.</i></b>  Image by Author. “ <i>Resting Motion.</i> ” Photograph. October, 2019.
[Figure 48]	Page 77	<b><i>Spadina Station Living Hallway Proposal Evening Habitation</i></b>  Image by Author. “ <i>Spadina Station Living Hallway Proposal - Three.</i> ” Illustration. April, 2019.			
[Figure 49]	Page 79	<b><i>Spadina Station Proposal Floorplan Level Zero.</i></b>  Image by Author. “ <i>Spadina Station Floorplan - One.</i> ” Illustration. April, 2019.			
[Figure 50]	Page 80	<b><i>Spadina Station Proposal Floorplan Level One.</i></b>  Image by Author. “ <i>Spadina Station Floorplan - Two.</i> ” Illustration. April, 2019.			
[Figure 51]	Page 81	<b><i>Spadina Station Proposal Floorplan Level Two.</i></b>  Image by Author. “ <i>Spadina Station Floorplan - Three.</i> ” Illustration. April, 2019.			
[Figure 52]	Page 82	<b><i>Spadina Station Proposal Axonometric Section.</i></b>  Image by Author. “ <i>Spadina Station Axonometric Section.</i> ” Illustration. April, 2019.			

When you know something,  
How do you know that you know it?  
How do you know that you know it?

When you know something,  
How do you know that you know it?  
How do you know that you know it?

They gonna tell you what to feel.  
They wanna tell you, you're gonna fail.  
And you chip a tooth, but it was on the truth,  
And we don't wait for someone to tell us.  
I'm here to tell you don't listen to them.  
Listen to yourself, but don't fall asleep in the restaurant.  
Anyway the west one.  
Any way the west one.

Them the crazy ones we know better, come on.  
None of us so crazy as to try to explain it to 'em.  
But they don't wanna hear it,  
And we just wanna keep living in America,  
But come on.  
We just wanna change the distribution of wealth,  
The weapons industrial complex, and the use of  
Force by sundown.

Like I said we the crazy ones.

I'm here to tell you don't believe any of it.  
I'm here to tell you don't listen to them,  
But don't fall asleep in the restaurant.  
Anyway the west one.  
Any way the west one.

Them the crazy ones we know better, come on.  
None of us so crazy as to try to explain it to 'em  
But they don't wanna hear it,  
And we just wanna keep living in America,  
But come on.  
We just wanna change the distribution of  
wealth,  
The weapons industrial complex, and the use of  
Force by sundown.

Like I said we the crazy ones.

No.  
Them the crazy ones, you know better, come on.

They gonna tell you what to feel.  
They wanna tell you, you're gonna fail.  
And you chip a tooth, but it was on the truth,  
And we don't wait for someone to tell us.  
I'm here to tell you don't believe any of it.  
I'm here to tell you don't listen to them.  
Listen to yourself, but don't fall asleep in the restaurant.  
Anyway the west one.  
Any way the west one.

Them the crazy ones, we know better, come on  
None of us so crazy as to try to explain it to 'em  
They don't wanna hear it  
And we just wanna keep living in America  
But come on.  
We just wanna change the distribution of wealth,  
The weapons industrial complex, and the use of,  
Force by sundown.

Like I said we the crazy ones.

No.

Them the crazy ones, we know better, come on.<sup>[1]</sup>

‘When’, by Rostam, 2017.

[1] Rostam Batmanglij, “When”, track 10 on *Half-Light*, New York City: Nonesuch Records, 2017, Compact Disc.

# A PUBLIC THINKING OF URBAN INFRASTRUCTURE

## An Introduction

In an age of rapid urbanization, the scope of our human habitation is becoming narrower and more confined to our cities, dominating our relationship to space within these built environments. As of 2018 the United Nations estimated that just over half of the worlds population is now living in some form of urban settlement, with around 541+ cities of with a million or more inhabitants set to increase by 28% to 706+ by 2030.<sup>[2]</sup> For a majority of us on Earth, cities are for better or worse our homes, our places of work, places of leisure, places of familiarity and places of shared and co-habitable space. We often characterize and understand cities by their designation of space as being either private, or public. These overlapping realms encompassed by our built urban environment, curate functional boundaries and patterns which in turn directly affect our human experiences, interactions and perceptions.

The dichotomy of these terms is useful, but not as strict unto itself as one may believe, where one realms boundaries can be permeable to the other, or vice versa.<sup>[3]</sup> For instance city streets, parks, and civic squares are generally considered to be very public spaces, where all manner

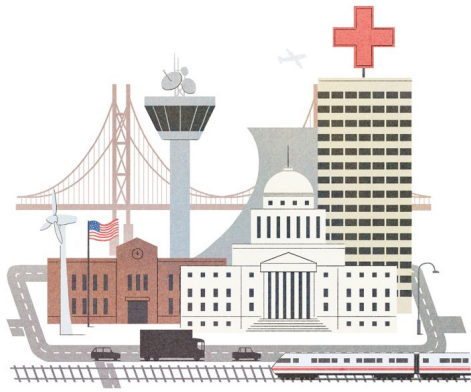
of social urban life may flourish unrestricted. Similarly, the private residence, office, or club is only accessible and available to a limited number of people, whom are often already socially familiarized with one another. The threshold between these designations becomes blurred in spaces like Malls, Schools, and Museums, which offer a preferred and enforced public interaction amongst strangers, whilst coupled with inaccessible and privately managed areas by specific groups beyond the general masses.

If we evaluate our cities based on the individual function of designed spaces as being either public or private, how then do we consider a cities systemic infrastructure, which may often be non-corporeal, institutional, and broadly geographical, but which still forms a crucial part of the urban environment?

[2] Department of Economic and Social Affairs, Population Division. *The World's Cities in 2018—Data Booklet (ST/ESA/SER.A/417)*. (New York City: United Nations, 2018).

[3] Lyn H. Lofland, *The Public Realm: Exploring the City's Quintessential Social Territory*. (New York City, New York: Walter de Gruyter Inc, 1998). 8-18.





[Fig 1] Above: Illustration of an expanded inclusion of infrastructure's architectural importance to the built environment and urban public experience.

[Fig 2] Opposite: Panel No.6 of the Pianta Grande map of Rome by Giambattista Nolli, 1748.

First we must define what we mean by infrastructure. In 2017, the AIA upheld infrastructure to include “[...] the public buildings that house our schools, courts, libraries, community centers and affordable housing.”<sup>[4]</sup> (AIA, 2017). Infrastructure is architecture, and it is public. The socialized idea of structures and spaces that benefit the human condition are roads and bridges, as much as they are city halls and historical archives. This is an opinion further held by 94% of surveyed Americans for a Harris Poll during the 2016 election, in broadening our notion of ‘infrastructure’ to one more inclusive of the greater public realm and it’s role in shaping American communities.<sup>[5]</sup>

[4] Steve Cimino, “Defined by Our Infrastructure,” *Architect Magazine*, December 07, 2017, [[https://www.architectmagazine.com/aia-architect/aiafeature/defined-by-our-infrastructure\\_o](https://www.architectmagazine.com/aia-architect/aiafeature/defined-by-our-infrastructure_o)]

[5] Steve Cimino & John Schneidawind, “Rebuilding America’s infrastructure starts with thinking locally”. The American Institute of Architects. December 06, 2016.

[6] Laila Seewang, “Skeleton Forms: The Architecture of Infrastructure,” *Scenario Journal*, *Scenario 03: Rethinking Infrastructure*, Spring, 2013.

[7] James Tice, “A Digital Extension of a Roman Cartographic Classic: The 1748 Nolli Map and its legacy”. *Journal18, Issue 5: Coordinates*, Spring, 2018.

However despite this synthetical underlying sentiment between public works and public buildings, there is still a large gap between what we consider as design, and what these spaces are designed to offer, architecturally. Writing for *Scenario Journal*, Laila Seewang reasons that;

“For architects in particular, the definition of what might constitute an architectural approach to infrastructure remains somewhat unresolved since the effects of infrastructure at the architectural scale are almost absent from contemporary discourse and comprehension at the urban scale often focuses on the diminishing significance of form and boundaries — concrete architectural concepts — in the face of a system of networks and flows in the contemporary metropolis.”<sup>[6]</sup> (Seewang, 2013).

If we are to consider (and as we should), that public urban buildings, like libraries and schools, belong to the realm of social infrastructure as a communal functional good, what benefit do we gain if we do not address the disconnect in designed consideration between public works and established institutional places? Should not our bike lanes, transit lines, freeways, and their intermediary constructs carry the same altruism as courthouses and public parks in service of the human condition? Are these manifestations not part of the urban environment? Indeed they are, and we cannot continue to ignore or overlook their significance in the complex narratives our cities tell, and offer.

One of the first documentations of the urban public realm was Giambattista Nolli’s *Pianta Grande* of Rome, or more commonly referred to as the ‘Nolli Map’, published in 1748. It was both a highly influential and highly accurate rendering of the city of Rome, with the inclusion of all public buildings, courtyards, churches and government edifices as being open and readable amongst the street plan.<sup>[7]</sup> It was through this map,





the character of the city was to be read as continuous and unbroken, from public street to public market, place of worship, and any other accessible interior area, symbolically suggesting that these spaces had intrinsic value in the urban fabric.<sup>[8]</sup> When discussing the public realm of our modern cities, we now have a more direct understanding of what these spaces may look like, and serve to do, especially in the realm of our public urban infrastructure. The permeable street extends to courtyards, alleyways, lobbies, malls, bus stations, parks and public squares, threading a network of open and accessible spaces and niches within the labyrinth of the cityscape. The civic or public square, forum, or plaza, is by far the most socially open of these manifestations in the city, vectoring and distilling the social, political, institutional, cultural, and economic forces that may affect a city.<sup>[9]</sup> Fernando Guillén Martínez (right) is quoted as saying the following on this topic (opposite);

[Fig 3] Opposite, above: Two young girls, climb a statue in Plaza de Armas with the La Moneda government building in background. Santiago Chile, 2006.

[Fig 4] Opposite below: Protestors of the Pinochet regime survey debris outside La Moneda government palace in the same Plaza, decades prior to the photo above it. Santiago Chile, 1973.

[8] Oliver Wainwright, "Grand plans: how the simple planning diagram has shaped our cities", *The Guardian*, November 22, 2012, [<https://www.theguardian.com/artanddesign/architecture-design-blog/2012/nov/22/planning-diagrams-urban-design-cities>]

[9] Setha M. Low. *On the Plaza: The Politics of Public Space and Culture*. (Austin, Texas: University of Texas Press, 2000). 31-37.

[10] Fernando Guillén Martínez, *The Tower and the Town Square: An Essay on Interpreting America*. (Madrid, Spain: Ediciones Culture Hispánica, 1958).



"The plaza in itself, considered limited in space by its four sides, is the most exquisite expression of social life ever achieved by Man's [sic] city planning and architectural genius. The giant monuments of ancient cultures are grotesque and shapeless imperfections in comparison. The pyramids of Egypt, palaces of Babylon, the temples of Greece, managed to convey a limited aspect of human life, but in so doing they sacrificed the wholeness of life. For that reason, they always bear within their beauty a mortal and definitive seal of sadness. They are closed circuits, frozen or gruesome perfections, because Man [sic] was never able to fully inhabit them, in spite of all their rich and complex existential temporality and eternity."<sup>[10]</sup> (Fernando Guillén Martínez, 1958).





The typology of the plaza, and its urban success and benefit to the human condition of cities, is one of un-programmed ability and freedom. The malleability to host a widened array of activities; from group actions like parades, concerts, protests, and rallies, to simple individual leisures, like resting, watching, playing, or meeting friends. It is an architectural success because of the human life it is able to accommodate, not despite it, and not under terms of enforced program, respect, or public control. From a planning perspective, the plaza is like the drainage delta of the receding streets, where all roads lead, connected and interlaced as a void within the private shops, apartments and homes that make up the city. The plaza is a dynamic spatial nexus within the city, occupying noticeable physical space in constant change as its inhabitants engage their actions to alter its social role.<sup>[11]</sup>

The plaza as a functionally public space, is only one reading of its role in the cityscape. A secondary reading of the plaza typology discovers the importance of character, narrative, and imagination in defining them as designated and meaningful places as well.<sup>[12]</sup> This is far more subjective, and is allocated foremost through individualized and consensus experiences amongst the public, determining the cultural and social meaning these urban public spaces hold, as shared and collective places.<sup>[13]</sup> For instance, places may take on broad shared histories and references to political, cultural or social events, or specified meaning to individuals incorporated in their day to day lives, commutes, or activities. The narrative is key for this designation, but is mutual alongside the plaza as a realm of public space. One necessarily facil-

itates the other to compliment a healthy social standing within the urban environment, and the plaza is a perfect example of this.

These qualities however exist elsewhere in the permeable cityscape, as studied by Nolli. Markets, promenades, parks and churches all fold into the public experience of the city beyond the opening of plazas and squares. And while these examples help define the public realm through a socialized ground planning, it is far too narrow a view of the modern city and the modern systems that undergird it. It is too horizontal. For many cities, their collections of permeable public spaces extend beyond simple layouts of city blocks and allocated green-spaces or hard-scapes. For some, the widest reaching and most utilized public spaces exist underground in the form of rapid mass transit; a circuitry of tunnels, stations, elevators, escalators, concourses, turnstiles, and maintenance corridors, that facilitate the movement of millions annually. It is without much doubt that metropolitan subways are some of the most shared urban spaces in any city that offers them. Yet subways are often relegated as merely functional transit infrastructure, without much design consideration for human habitation besides movement and passage, making them hallmark examples of the divide in infrastructure consideration. Across our cities globally, available area is being swallowed up by developments and developers alike, masked as densification and growth. It is now more essential than ever to reframe our thinking of private opposition, and to champion the social urban life by weaving it into all manner of built and communal elements of the permeable cityscape. The subways, form an under-utilized canvas for this unique challenge.

The aim of this thesis is one of exploration, critique, and accolade in praise of the often neglected and undervalued public spatial infrastructures our cities rely on. It is by no means a full account of the entire scope of globalized ur-

ban transit infrastructure, which can include airports, passenger train stations, bus terminals, ferry ports, bike lanes, elevated pedestrian greenways, streetcars & trolleys, parks, promenades, highways & parking garages. Yet it is my hope that this document will offer both a didactic and reconsidered way of thinking when it comes to examining our cities infrastructure, as crucial architectural space, in particular subways. This thesis will posit that the manifestations of the subway, from the platform to the concourse, and even the threshold of entry between the above and below, are more than just a utilitarian means of movement. That these spaces can and do act as social hubs, in cities rapidly lacking the space to designate themselves as having enough.

The subway is the focal point of the neighbourhood, the node of the street grid, and it extends the urban pedestrian experience underground. Subways are home to buskers, beggars, peddlers, and preachers, and all manners of

individuals from all walks of life in a collective public unison. The subway is as marvellous in its engineered integrity as it is in its wealth of social habitation. A wealth of which that this thesis argues, is both parallel and equal to that of the public forum, plaza, or square. Coupled with this view, is a direct design proposal to reimagine an existing subway station, analyzing its site, its use, its history, and its tectonics. In doing so, a clearer realization and consideration for subways as a socially celebrated and politically critiqued piece of the urban fabric, can come into focus. One which bridges the intersection of numerous disciplines of social study (economics, law & authority, sociology, and urban planning) while serving equally as a didactic example of how to treat these intersecting urban narratives, architecturally and underground.



[Fig 5] Above: Night time view of Kropotkinskaya Station. Moscow Russia, 1935.

[11] Setha M. Low. *On the Plaza: The Politics of Public Space and Culture*. (Austin, Texas: University of Texas Press, 2000). 31-37.

[12] Ibid.

[13] Ibid.

IN PRAISE  
OF THE UNDERGROUND

*A Brief History of Rapid Mass Transit*

To compare the typology and existence of the city as a historical settlement of human habitation, to the advent in technology of the subterranean metro system as a typological addition, the difference in time is both drastic and expansive between some 500,000 years ago. The problem with pinpointing the city as a tangible invention with a date of inception, is that as a species, our survival relied closely on the principles of co-operation and co-habitation, giving rise to the need of being able to manipulate our immediate environments to suit our needs.<sup>[14]</sup> Likely nomadic, we began settling and determining ideal habitation patterns with one another along agricultural, defensive, cultural and considerations of well being, giving rise to the first ancient villages and towns.<sup>[15]</sup>

Travelling forward to the height of our species' revolution of industry, came the notion and need of unified mass transit systems, ones which could accommodate large numbers of individuals and transport them across vast swathes of inter-urban areas. It was during this time in Europe and North America, that cities were overflowing with influxes of rural workers

looking for work, increasing population densities and straining the existing infrastructural block grid of housing and streets, alleys and laneways.<sup>[16]</sup> Efficiency was key. The labourer needed access to the factory for the start of his shift, and be able to return home at the end. In essence, these were the first urban commutes. It was a model directly tied to the advancements amenable through the rapid innovation of new technologies being made available. In raw terms, cities with a population exceeding 100,000 increased from 50 to over 900 in between 1800 and 1950, a figure that has only exponentially risen since.<sup>[17]</sup> Coupled with these trends in urbanization and the rapid expansion of our cities, so too have our systems of transit. In 2017, the Union Internationale des Transports Publics (UTIP) reported there were approximately

[14] Egon Ernest Bergel. *Urban Sociology*. (New York City, New York: McGraw-Hill Book Company Inc., 1955). 17-21.

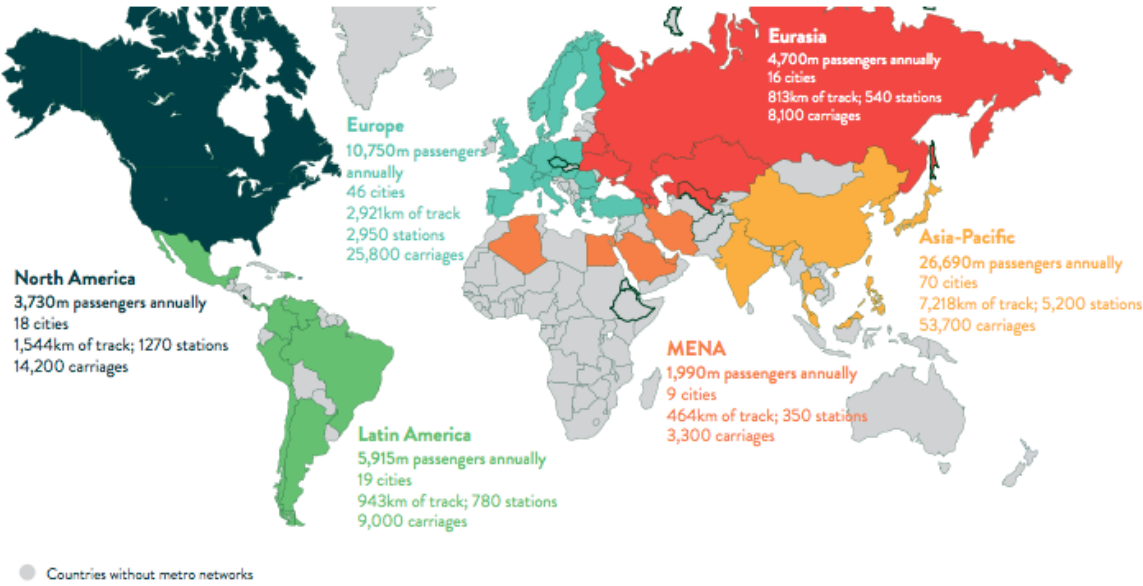
[15] Ibid.

[16] Peter McGahan. *Urban Sociology in Canada*. (Toronto, Ontario: Buttersworth & Co., 1982). 1-3.

[17] Ibid.



Metro networks worldwide 2017



[Fig 6] Above: Illustration of the world annotating the physical presence of metro systems globally, as of 2017.

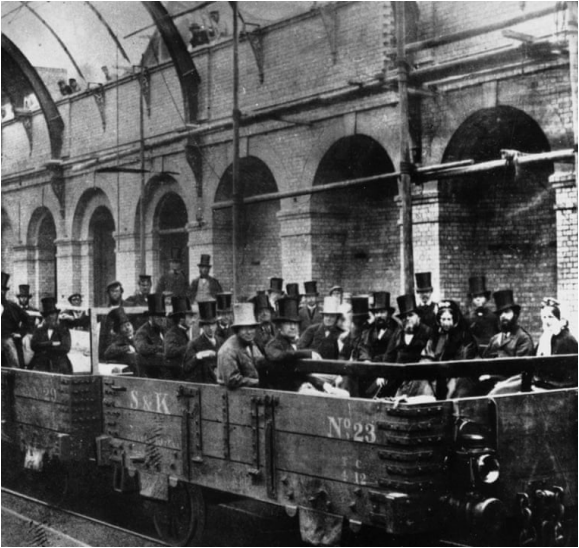
178 cities across 56 countries, which had in operation some form of light or heavy urban rail passenger system, carrying a total of 53,775~ million passengers a year or some 147~ million every single day.<sup>[18]</sup>

The beginnings of rapid mass transit and the underground metro, was again, born out of the need for efficient transportation the congested cities of industrial Europe and North America, the first of which, was completed in London in 1890.<sup>[19]</sup> An electric rail running underneath the River Thames in a shallow tunnel ferried people across a relatively short distance (by today’s standards), and was operated by The City and South London Railway Company.<sup>[20]</sup> The preceding decade and

[18] Union Internationale de Transports Publics. *World Metro Figures 2018*. (Brussels: UITP, 2018).

[19] “A brief history of the Underground,” *Transport for London*, [https://tfl.gov.uk/corporate/about-tfl/culture-and-heritage/londons-transport-a-history/london-underground/a-brief-history-of-the-underground]

[20] Ibid.



[Fig 7] Above: Photo of Londoners inspecting the first underground public rail tunnel on it’s opening day. London England, 1890.



[Fig 8] Above: Photo of the entrance to the Ginza station underground. Tokyo Japan, 1950.

century saw the following construction of several urban subterranean transit lines including Boston (1897)<sup>[21]</sup>, Paris (1900)<sup>[22]</sup>, New York City (1904)<sup>[23]</sup>, Madrid (1919)<sup>[24]</sup>, Tokyo (1927)<sup>[25]</sup>, and Moscow (1935)<sup>[26]</sup>.

As these changes and systems were taking root underground, the world above was fast outpacing them. Following the reconstruction of World War 2, cities began to transform again, much as they did in the 1800’s with manufacturing and production. Family units began leaving the city centre to live in suburbs not serviced by transit lines and fully dependent on the automobile for individualized travel.<sup>[27]</sup> This coupled with the 1950’s infrastructure spending turning towards highways and interstates, especially in North America, rapid transit began to figuratively starve of riders, and thus sole fare funding, as many were still privately operated for-profit entities.<sup>[28]</sup>

The 1960’s and 70’s saw even further emigration from urban cores with “white flight”, especially in America, spurred by desegregation and cheaper professional white collar living outside the city nebulous. In turn, this would increase the total share percentage of coloured citizens living in underfunded city centres, who them-



[Fig 9] Above: Photo of a construction worker caulking joints of the sixth avenue subway tunnel. New York City USA, 1939.

[21] Eric Jaffe, “The Fascinating History of New York and Boston’s Race to Build a Subway,” *CityLab*, February 24th, 2014, [https://www.citylab.com/transportation/2014/02/fascinating-history-new-york-and-bostons-race-build-first-subway/8462/]

[22] Taras Grescoe, “Secrets of The Paris Metro,” *New York Times*, November 19th, 2000, [https://www.nytimes.com/2000/11/19/travel/secrets-of-the-paris-metro.html]

[23] Eric Jaffe, “The Fascinating History of New York and Boston’s Race to Build a Subway,” *CityLab*, February 24th, 2014, [https://www.citylab.com/transportation/2014/02/fascinating-history-new-york-and-bostons-race-build-first-subway/8462/]

[24] Benjamin Villanti “Subway Lessons from Madrid,” *City Journal*, *Infrastructure and energy*, Spring 2010.

[25] Alex Martin “Ubiquitous Tokyo subways moving the daily masses,” *Japan Times*, August 3rd, 2010, [https://www.japantimes.co.jp/news/2010/08/03/reference/ubiquitous-to-kyo-subways-moving-the-daily-masses/#.XMico5NKj6A]

[26] “Building the Moscow Metro, or the brief history of the underground city,” *Mos.ru*, September 13th, 2017, [https://www.mos.ru/en/news/item/28604073/]

[27] Jonathan English, “Why Did America Give Up On Mass Transit? (Don’t Blame Cars),” *CityLab*, August 31st, 2018, [https://www.citylab.com/transportation/2018/08/how-america-killed-transit/568825/]

[28] Ibid.



selves formed already racially oppressed groups, largely reliant on social services and in particular inter-urban transit.<sup>[29]</sup>

It was during this period, beginning in the 1950's and lasting through until the 1980's that several urban rail infrastructure was choked out, predominately at-grade level trolleys and street-cars. Yet subways, were able to survive the car, the suburb, and the underfunding both cultural items created, thanks mostly to political agglomeration with social subsidy from governmental level tax revenue.<sup>[30]</sup> In other words, there was an emerging recognition heading into the 1990's and the new millennium, that communal travel and integrated travel worked best for the city typology as a functional utilitarian means of movement. That these systems were required as a social public good, indispensable, and who's benefits far outweighed their costs associated with maintenance and use. It is this notion, foremost, that carries the future of public transportation.

There are likely many intersecting reasons for the late resurgence in transit importance, including economic outsourcing of ex-urban middle class jobs, the gig economy, rising costs of living, and fears of climate change, gridlock strain, and energy consumption.<sup>[31]</sup> In reality, those who use and actually experience public transit,

[29] Jonathan English, "Why Did America Give Up On Mass Transit? (Don't Blame Cars)," *CityLab*, August 31st, 2018, [https://www.citylab.com/transportation/2018/08/how-america-killed-transit/568825/]

[30] Ibid.

[31] Jarrett Walker, *Human Transit: How Clearer Thinking about Public Transit Can Enrich Our Communities and Our Lives* (Washington, D.C: Island Press, 2012), 1-13.

[32] Sam Roberts, "100 Years of Grandeur: The Birth of Grand Central Terminal," *New York Times*, January 18th, 2013, [https://www.nytimes.com/2013/01/20/nyregion/the-birth-of-grand-central-terminal-100-years-later.html]

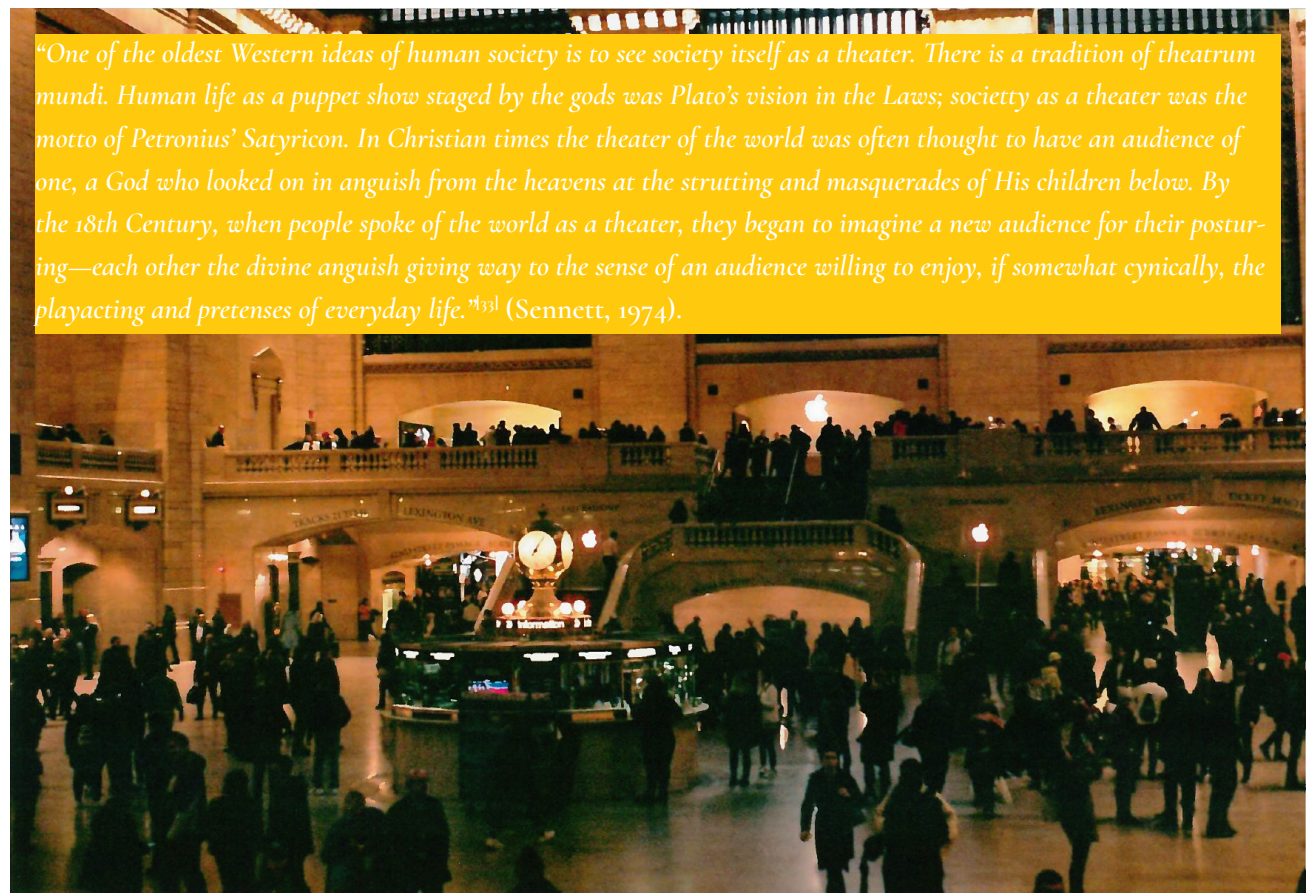
aren't typically the ones who design it, fund it, or advocate for it. Recent expansions are really the powers that dictate transit planning pressured by urban growth rates to keep the machine of the city running. The motivator still isn't quite revolving around the idea of transit as a social good, it is still concerned with transit as a functional one, an urban organ instead of an urban oasis. This differs starkly with the typology and history of the train station.

Prior to the invention of the personal automobile, commercialized air travel, and free-way interstates, it was predominately via rural rail networks that one would travel between cities and towns. Communal passenger transportation was the ideal form of travel over great land distances interconnecting the opposite points of entire continents. Visitors would arrive on a multi car steam (or later coal) locomotive adjacent to a series of parallel platforms with a dozens of other steam or coal locomotives. From the moment one would depart the carriage of the train, they would instantly be embellished within the fabric and experience of the city. Thrust amongst those leaving, those arriving, and those waiting for others to arrive or others still to leave. The air would be filled with smoke and the chattering of the day, the denizens therein moving through their own routines, known or unknowingly contributing to life ongoing. The smell of fresh baked goods and shoe polish, amongst the echo of hundreds of footsteps.

All of this, was contained within the station artifice, built wide and tall and of heavy stone, but dazzlingly well lit with morning light and spaciouly airy. Perhaps home to intrusive fluttering pigeons. The station would often be off centre to the heart of the city. It was in many ways and for a long time, the new Roman gates of a city.<sup>[32]</sup> Gare du Nord in Paris, Grand Central Station in New York City, or Union Station in Toronto.

It is worth here, returning to the notion of place, especially when it comes to infrastructural manifestations and to compare the notion of place, between the train station and the subway station, because of their functional proximity. Place cannot merely be defined by what it accomplishes or what it's planned directives were when first designed. It is the un-programmed program. It is the event space impromptu and completely organic in it's interactive existence. It is the character and folklore that can take a space over and assign it a monumental meaning of a separate accord beyond it's design intentions. It offers a monumentalism not of memorializing something, but of establishing a colloquial touchstone space

for all to interact and identify with on a shared level. Place is foremost an expression of subjectivity, but nonetheless quantifiable when seen through the lens of human use and the diversity attributed thereof, and in many ways, urban place making, the assigned role of the space of the city, sets the stage for public life, as a theatre. Richard Sennett writes;



[Fig 10] Above: Photo of noon hour foot traffic, through Grand Central Terminal. New York City USA, 2018.

[33] Richard Sennett, *The Fall of Public Man; On the Social Psychology of Capitalism*, (New York City: Random House Inc., 1974), 34-35.

Sennett is deeply philosophical, but nonetheless revealing of the pretext and view of human interaction around this time, with regards to place-making. Sociologically speaking the public (or actors) aim to interact in fixed scenes or situations (places) in fashions chosen upon by their class, identity, and a myriad of other deciding factors.<sup>[34]</sup> However, what Sennett does not account for is the role architecture plays in these social habitations and what cues and suggestions architecture can provide through a language of experiential design.

For instance, returning to the typology of the train station, the imposing grandeur and tectonics of the space aimed to imply dignity, pride, and monumental impressionism, again, to service the replication of gates and offering a new grand entrance to the city itself. The actors, of these stages, were inclined to treat the train station as a formal meeting point, for arrivals and departures. The train station was a way of formalizing movement at the helm of the city as a receptive space, both functionally as a means of facilitating necessary movement, but also in establishing a the presence of firm and embedded public gathering space in the fabric of the city.

Yet we are still faced with a disconnect when it comes to understanding and describing the public realm of the nearly identical functional infrastructure of subways. Nearly every aspect of social habitation and place making that occurs in an above ground train station, occurs similarly in below ground subway stations, throughout the city. They are both extensions of the public and accessible city streetscape, they are both manifestations of urban public space, they both facilitate the passage and flow of people, and they both designate unique places and place-making narratives within the fabric of the city. Yet the consideration given to the actors, (or the public realm

[34] Ibid, 35-36.



[Fig 11] Above: Photo of a busker singing in the Underground, using the intimate space of the station, as a stage for performance. London England, 2010.

of individuals) within the spatial typology of the subway, is not reflective in its architecture, let alone its discursive architectural consideration. On any given day, at any given time, in any given station, in any given city, one can witness a petri dish of social diversity representative of the city experience distilled. Puerto Rican brass bands, mimes, jugglers, elderly men sleeping, children playing, teenagers skateboarding, cyclists maneuvering their rig through a crowd, bourgeois women with tiny purse dogs, poets, artists, preachers, the homeless and the bankers, the interns and the unemployed, lost tourists, and everyone else in between. This urban snapshot, entirely subjective yet nonetheless diverse, is the essence of subways. The human activity that inhabits them is what has, and continues to be, the force that keeps

these spaces imaginatively capturing and honest in their accommodation of urban social life. Just as their contemporaries the industrial era centralized train stations of Europe and North America were preceding them.

Since its historical inception, mass transit (and the subterranean metro system specifically), has been attached with the idea of being a shallow and two dimensional functionary manifestation, a strictly transactional feature of the larger city experience. And it was through this associated stigma being born from an engineered means to an economic end that there is a current lack of celebration for these spaces as equal to that of the train station or the plaza. This initial conception as a way to keep the churning factories of British and American cities full of exploited underclass labour, in addition to the smothering excess of suburbanization and auto-mobility over the past seventy years, has seen many subways of the world falter, and be relegated. Policy, underfunding, and importantly neglectful design, still prioritize the function of subways over the human habitation they create. Subways are more than a tool, they are an opportunity, foremost, to legitimize the existing activities and social habitation that occurs within them, with a responsive and conscious urban environment.



Violence is the fruit of unreached understanding,  
That flowers from the lips of scoundrels.  
It is a forest so dense and rooted in our past,  
It tempts us to become lost in its darkness.  
And stinks like the piss test you were forced to take,  
Just before you were told that you didn't meet  
The standards of integrity that this organization strives to  
maintain.

Why are there no folk songs about ATM machines  
That produce the likeness of the blazer of the trail of tears?  
Issuing overdraft fees from beyond the grave.  
Prison TV shows in an endless queue,  
Containing the robust nourishment of a commissary.

This is why we cannot afford to close an open casket.  
You protect no one by obscuring the mirror  
That reflects our own problematic reality.  
Allow me to ponder the role I play,  
In this pornographic spectacle of black death.

At once a solution and a problem;  
A cause, an effect, a rejoice, a regret.  
Violence is daily life.  
A promise a pact that the world never kept.  
Violence is daily life.  
A cause, an effect, a rejoice, a regret.  
Violence is daily life.  
A promise a pact that the world never kept.  
Violence is daily life.  
Violence is daily life.

Violence happens every day  
It's hard to get used, to getting used, to violence.

'Savage' is my name because 'Savage' is how I feel  
When the radio wakes me up with the words  
"suspected gunman".

My name is a warning for the acts you are about to witness,  
Which contain images that some viewers may find disturbing.  
My name belongs to us all,  
So if they ask for yours, you give them mine.

My name is a threat.  
Riot is an unfinished grave that was dug to deposit undepleted anger,

Like barrels of uranium leaking into something sacred.  
It is a word to use, to delegitimize your unrest,  
And to make your resistance into an overreaction.  
The pink tube of paint called flesh,  
Used in portraits of chairmen of boards, and  
Men who clean up streets named after those who fought  
For erasing the lives they now claim to protect.

What is an 'up-and-coming neighborhood' and where is it  
coming from?  
A cause, an effect, a rejoice, a regret.  
Violence is daily life.  
A promise a pact that the world never kept.  
Violence is daily life.  
A cause, an effect, a rejoice, a regret.  
Violence is daily life.  
A promise a pact that the world never kept.  
Violence is daily life.

What's wrong with the air you breathe?  
The water you drink?  
Violence is so omnipresent,  
So ingrained in your daily reality,  
You forget to notice it happens everyday.<sup>[35]</sup>

'Violence', by Parquet Courts, 2018.

[35] Austin Brown, A. Savage, Max Savage & Sean Yeston, "Violence", track 2 on *Wide Awake!*, New York City: Rough Trade Records, 2017, Compact Disc.

## QUESTIONING PUBLIC LEGITIMACY

### *A Case Study on the New York City Subway*

On January 30th, 1981, between the hours of 11:25pm EST and Midnight, the New York City MTA E-Line Subway was piloted by a fifteen year old boy from 34th St. Station to the World Trade Centre, where he was subsequently arrested. The boy, heralding from Queens' Jamaica, and an acquaintance of the conductor Carl Scholack, took control of the train and guided it through 8 stations heading south when Mr. Scholack suffered from an undisclosed medical emergency underneath Pennsylvania Avenue Station.<sup>[36]</sup> The incident garnered city wide attention, not simply because of the boys age, but because his conducting of the train was so seamless, passengers didn't even notice a change in their commute. That was until one of them physically spotted the young boy sitting perched at the front of the train, handling the controls, dials and levers and alerted the nearest MTA station personnel leading to both his, and Mr. Sholacks arrest.<sup>[37]</sup>

The boy in this story, named Darius McCollum, is a life long New York City resident and transit savant with Asperger's Syndrome, who has become both a folklore hero for the public, and bureaucratic villain for the City and its law

enforcement. For 37 years Darius has been in and out of jail, with about 30 arrests in total, and over 500 public transit vehicles commandeered, the charges ranging from reckless endangerment and trespassing, to impersonating MTA employees.<sup>[38]</sup> In February of 2000, Darius had dressed head to toe in a forged MTA Uniform, and gained access to the 57th Street Station control room as he had heard that a train was stopped in the middle of the tunnel, and wanted to lend his help.<sup>[39]</sup> Most

[36] Wolfgang Saxon, "RIDERS UNAWARE AS BOY, 15, OPERATES IND TRAIN", *New York Times*, January 31st, 1981, [https://www.nytimes.com/1981/01/31/nyregion/riders-unaware-as-boy-15-operates-ind-train.html]

[37] Ibid.

[38] Cynthia Dagnal Myron, "Off the Rails: Train Man Darius McCollum's Wild Ride", *Huffington Post*, April 6th, 2016, Updated December 6th, 2017, [https://www.huffingtonpost.com/cynthia-dagnalmyron/off-the-rails-train-man-d\_b\_9611630.html]

[39] Dean E. Murphy, "Judge, Clearly, Not Amused, Sentences a Subway Imposter", *New York Times*, March 30th, 2001, [https://www.nytimes.com/2001/03/30/nyregion/judge-clearly-not-amused-sentences-a-subway-impostor.html?module=inline]



recently, Darius was arrested again in 2015 for taking control of an unattended Greyhound bus at the Port Authority Terminal and driving it along a Queens - Brooklyn - Manhattan route. On October 5th of 2018, Darius took a plea deal with the Brooklyn Supreme Court to be admitted to the Ward's Island criminal Psych Ward, where he has been sentenced to stay, indefinitely.<sup>[40]</sup>

Darius McCollum's story brings to light an interesting question surrounding America's largest Transit System; "For whom is public space/transit legitimate for?" The New York City Subway opened officially, in October of 1904, seven years after Boston's T-train, and a full fourteen years after the London Underground.<sup>[41]</sup> The marvel, was as much a technological one, as it was a cultural one in understanding the geography and context of the city, where great urban distances were shrunk, bridging polar neighbourhoods like Brighton Beach and Harlem to just a forty minute ride.

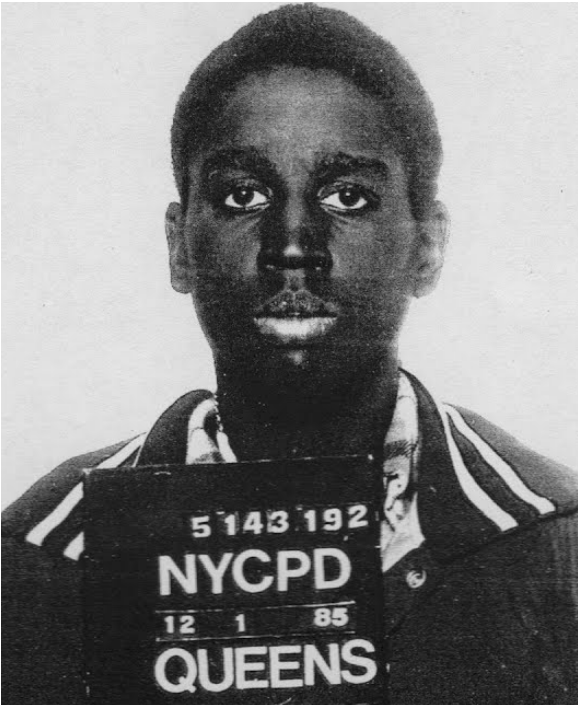
As the system grew to meet the needs of the cities existing (and continually growing) size, other transit tunnels and systems were constructed, carving out an urban labyrinth weaving across the silt bedrock of the Hudson River estuary. The New York City subway, as we understand it today,

[40] Emily Saul, "Transit bandit ordered locked up at secure psychiatric", *New York Post*, October 5th, 2018, [https://nypost.com/2018/10/05/transit-bandit-ordered-locked-up-at-secure-psychiatric-facility/]

[41] Sunny Statler-Pace. *Underground Movements: Modern Culture on the New York City Subway*. (Amherst, Massachusetts: University of Massachusetts Press, 2013), 25.

[42] Paul Shaw. *Helvetica and the New York City Subway System: The True (Maybe) Story* (Cambridge, Massachusetts: MIT Press, 2011), vii-viii.

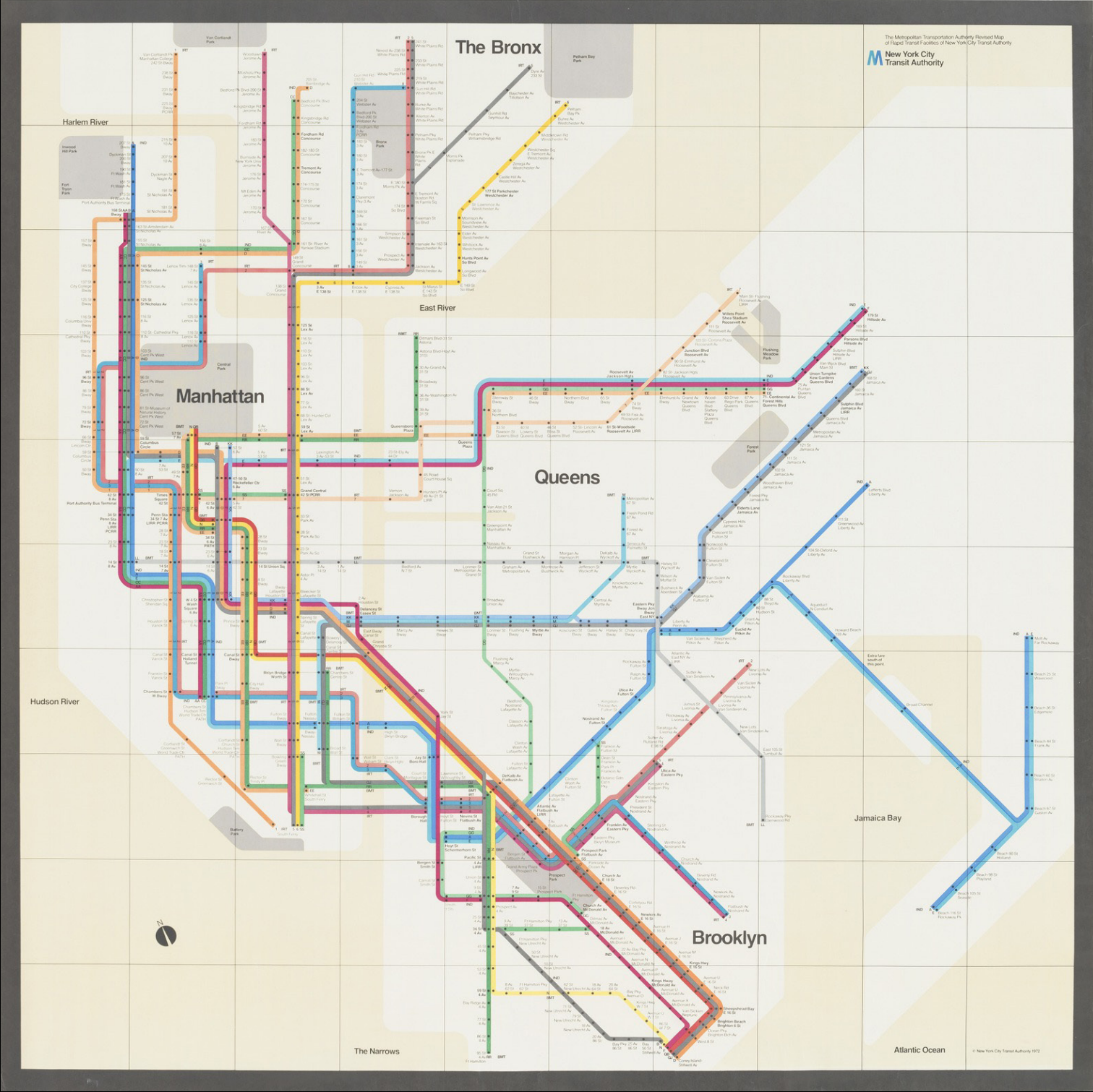
[43] Sunny Statler-Pace. *Underground Movements: Modern Culture on the New York City Subway* (Amherst, Massachusetts: University of Massachusetts Press, 2013), 28.



[Fig 12] Top: Mugshot of a teenage Darius McCollum after a transit related arrest. New York City, 1985.

[Fig 13] Above: Darius McCollum awaiting trial and sentencing for his 32nd official arrest. New York City, 2016.

[Fig 14] Right: Graphic Designer Massimo Vignelli's interpretation of the New York City subway system. Interpreting geography and glow along 90 and 45 degree angles/curves. New York City, 1972.





is a combination of what were once three separate transit conglomerates, all acting independently and in direct competition with one another. The Interborough Rapid Transit Line (1904), the Brooklyn Rapid Transit Line (1908), and the Independent Subway System (1932), were conglomerated in the 1940's with the anointment of the Metropolitan Transit Authority, a joint municipal and state level public organization tasked with funding and operating these systems in unison.<sup>[42]</sup> Now one of the world's busiest metros with an average yearly ridership of 1.7 billion, the New York City subway is an iconic and immediately recognizable part of the city. From the classic Helvetica white on black font, to the line colours and alphabet city letters, the vast and expansive network of leaky and rat infested tunnels have become a characteristic and capturing public place. One that all imagine is shared, but in reality, faces harsh, and constricting politics that prohibits, monitors, and controls the very of the public, and filters who within the public, has legitimacy.

To understand who has a legitimacy to public space in the New York City subway, we must first identify how the metro as an infrastructural manifestation, forms a part of the collective imagination of the public through its own specific place-making. As we have previously discussed with plazas and train stations, social civic spaces within the city are experientially shared places by housing a widened array of human activities beyond the utilitarianism of their design/funding, and creating a defining collective commons. In

Sunny Stalter-Pace's Underground Movements; Modern Culture on The New York City Subway, he posits that:

*"[...] a space is roughly a location through which one moves, while a place is a location in which one stays."<sup>[43]</sup> (Stalter-Pace, 28).*

While Statler-Pace acknowledges that the New York City subway provides an opportunity to be both a designated place (station), and an infrastructural space to facilitate the function of movement (tunnels/travel), he decides the latter definition is more apt choosing function over experience. This dismisses the way we personally identify and designate our environments through our interactions, by reducing it to an objective transaction and not a subjective experience. Even examining rider relationships with the subway as transactional, does not account for the ways in which we acclimate ourselves to the unfamiliar. Individuals travelling through the subway, or any unknown part of the city, will orient themselves and navigate towards their destination through a process of unconscious knowing and decision reasoning, by combining understandings of space and time relative to the self.<sup>[44]</sup>

Our perceptual understandings of space is intrinsically tied to our personalized experiences, as they occur in practical use. As mentioned earlier, the subway combines the ideals of functionality (travel) and location (station) into a single public social typology. The city can therefore be classified not as clear and legibly defined place, but an interpretive one, that can be varied in understandings of both scale and completeness. The city, is a cognitive map based on our personalized experiences and attachments with it, threading our own narratives and understandings as non-definitive places that we still assign personal weight.<sup>[45]</sup> Our familiarity with the underground is a result of our familiarity of what we know aboveground, of our intuitive understanding of where

we are in space and time, and what that means in context to our spatial surroundings. One may easily and with little effort on their part, unconsciously learn how many times the train will stop before it is their turn to get off, but the mind's eye for this goes beyond just simple repetition. Even underground, without daylight, or trees, or birds, our understanding is fundamentally still perceptual to experiential phenomenology itself. We look for things we can associate our understanding and identity to.<sup>[46]</sup> Art along the subway walls, or our favourite news stand. We may even know the vendor. We may emerge above ground and smile while texting a loved one that a busker was singing our

wedding song at 14th St. Station. This is what captivates, and mystifies the subway as a place within the city. For someone like Darius McCollum, even ignoring his personal mental health diagnosis, the imaginative draw that the subway has is both compelling and deeply personal. As broad as the subway is as an existing infrastructure, it's capable and culpable of conjuring our sentimental attachments as any aboveground place, or resonant locale. It is conjunctive, interpretive, and with boundaries that are loosely attributed to the notions of what is above and below and their relation together. To quote New York Times transit columnist Randy Kennedy;

*"Trying to describe a day in the subway is a little like trying to take a snapshot of the wind. It's everywhere and nowhere in particular. You can feel it and hear it yet chase in vain to capture the essence of the life lived along some 700 miles of track, inside 468 stations, where New Yorkers have done everything they've done on the streets above and more. They've been born there and died there. They've lived there and eaten there and slept there and dreamed the dreams they missed during the too-short nights before. They've found their muses and their soul mates. They've lost their wallets and their patience and, sometimes, their minds."<sup>[47]</sup> (Kennedy, 2004).*

[44] Ibid, 38-39.

[45] Ibid, 39.

[46] Ibid, 39-40.

[47] Randy Kennedy. "A Day in the Subway, as It Rolls Up a Century", *New York Times* (New York City, NY), October 27th, 2004 [<https://www.nytimes.com/2004/10/27/nyregion/a-day-in-the-subway-as-it-rolls-up-a-century.html>]



[Fig 15] Top: Photo of a busking brass band, 42nd Street Station. New York City USA, 2018.

[Fig 16] Above: Photo of a Puerto Rican salsa band, 42nd Street Station. New York City USA, 2018.





s of terror. For his  
Bureau of Investiga-  
tion, and instead  
ment at Riker's  
as assessed that



[Fig 17] Top: Photo of Coney Island 'D' Train.

[Fig 18] Above: Photo Coney Island 'D' Train.

Throughout the length of Darius McCollum's career in transit vehicular theft, for which his passions (and to a lesser extent mental illness) led him, he was not once offered a job with the MTA. The crimes committed were exclusively non-violent and non damaging to property in any way, and he had furthermore demonstrated his rigour and skill at the tasks of conducting and operating New York City's transit without formal training. In the aftermath of 9/11, Darius, who was incarcerated at the time, volunteered his extensive knowledge of the subways to locate weak points.

[48] "The Boy Who Loves Trains", #FreeDariusNow, accessed December 3rd, 2018, [https://www.freedariusnow.com/darius-mccollum/]

Darius' information and intentions could be easily taken advantage of by agencies and groups wishing to do harm.<sup>[48]</sup>

Again, we must ask, how does a harmlessly innocuous man with a passion for transit, volunteering his own time to both study, and understand the system functionally better than the departments tasked with running and protecting them get, such a vicious and punitive treatment? Darius is only one figure ratified by this question, as these spaces are routinely policed and controlled in the names of city safety and presentability, applied with public brushstrokes. Buskers, pan-handlers, breastfeeding mothers, homeless people, those with mental health considerations,

and marginalized societal groups. These questions of public legitimacy and inclusivity are intrinsically tied to socio-urban perceptions and stigmatizations that are politically and institutionally enforced in many, if not arguably all cases.

For New York City specifically, these intersecting lines of politics and public control have historical precedent, exemplified by conflicts like the Central Park Five Trial, and the Stonewall Riots, dealing with the marginalization of African American youths, and Queer sex workers respectively. So how then does architecture implement control, or rather, how does architecture assign control? To the disenfranchised, or to the disenfranchisers? Does architecture play a role in social legitimacy of space and place? Especially in proximal urban settings? In many urban areas, the task of safety and thus the deciders of legitimacy, are the police and security forces, both of whom share authority over subways, their trains, and their stations. Vigilant for activity that is suspect, as well as heightening suspicion of guilty or

illegitimate members of the public realm. Yet our societal reliance on police and the act of policing, is not why certain spaces are safe and others more dangerous, in relation to their presence or absence. As Jane Jacobs notes in *The Death And Life of Great American Cities*, societal safety and order is largely maintained by public populations for whom outnumber a police presence several folds over.<sup>[49]</sup>

Again, the political parsing from this stems from municipal funding and rationalizing the fear of strangeness in ones fellow citizens. The public realm however, is largely and entirely made up of strangers and their interactions, especially in dense urban cities. Social conditioning can only go so far, and rule of force demonstrably does little to deter malicious intent. From December 2013 through until January of 2014, the NYPD did service strikes in response to comments made by then Mayor Bill de Blasio surrounding #BlackLivesMatter protests and the unrelated murder of two officers parked in their squad car.<sup>[50]</sup> The



[Fig 19] Protestors and residents march together against police brutality in New York City, 2015.

[48] "The Boy Who Loves Trains", #FreeDariusNow, accessed December 3rd, 2018, [https://www.freedariusnow.com/darius-mccollum/]

[50] Zachary P. O'Keeffe & Christopher M. Sullivan, "Does more policing lead to less crime — or just more racial resentment?", *Washington Post*, July 25th, 2016, [https://www.washingtonpost.com/news/monkey-cage/wp/2016/07/25/does-more-policing-lead-to-less-crime-or-just-more-racial-resentment/?utm\_term=.e9101aff81a3]



strikes would intentionally slowdown response to petty crime and legal violations, and only answer calls for major or violent crimes to demonstrate the necessity for a consistent police presence, and, presumably, a greater municipal respect for the safety they provide. During this period however, across all summonses citations and minor crime arrests, the crimes committed in these categories were down upwards of 40% from the same time the year prior.<sup>[51]</sup>

Furthermore, the rate for violent and major crime also dipped slightly as well, challenging the ‘broken windows’ theory of policing practice where increased surveillance and authority against petty crimes, will mount to deter the social degeneration that ‘fosters’ greater and more violent crimes. These results were the same for precincts in both majority white communities, and majority marginalized communities of colour.<sup>[52]</sup> The results of this analysis, again, were city wide and not specific to the subway as a consolidated urban locale. Still however, their critique is applicable as places of transit form the most universal points of shared urban spaces within the city, and are nonetheless subject to the same institutional application of policing that proliferates aboveground. It is therefore inappropriate to respond to social urban variance with immediate question, and force of strength, along the thought process that it will inevitably lead to safer spaces. That the juggler or the skateboarder must be punished to deter the rapist, or the thief.

Architecture is reliant on human activity to justify itself. Without a human dimension, it is characterless, and offers very little besides an assemblage of spaces that house nothing. This human life and activity, is as varied as the seven or so billion of us who share this planet. Less

than that in the city, but still in the millions, all collectively partaking in the urban environment and sharing in the spaces contained therein. The subway especially highlights this shared public realm, extending and meandering unseen through the dense palimpsest of condo towers, malls, row houses, parks, schools, museums, dive bars, night clubs, churches, nursing homes, homeless shelters and Prada outlets, but still connecting it all, intrinsically. The subway captivates and informs our understandings of the city because it forms both a functional space of movement, and a shared place of identity. It requires a shift to acknowledge these spaces for what they are and what they stand to offer, to the social well-being of the city, and the increased social participation of its citizens.

If we acknowledge that subways are more than functional spaces, but preclude the domain of the greater venue of public place, then what relationship does it hold to the inhabitants and activities within? Crime, music, or market exchange; the undeniable and un-programmed wealth of the underground. Should this then be controlled as a synonymous form of consolidated authority? Wherein all actions benign or otherwise face heightened scrutiny and direct action, criminalizing the public and controlling the freedoms of expression and equitable use of space? Or, should crime and harm be relegated passively, through indirect measures of shared urban unity, promoting a public reliance, and passive buffer in our architectural surroundings? Most notably, our enclosed underground ones? I argue the latter, as the draw and connection between place can only be strengthened communally in reflection of its architecture, as opposed to designating an inherent program, be it one that mimics social vibrancy, or enforces control over said social vibrancy.

[51] Ibid.

[52] Ibid.



[Fig 20] A whirring view, from a passing subway car, somewhere in the New York City metro, 2018.

Dufferin Street.  
Tandridge Crescent.  
34th Avenue.  
3rd & Windner.  
Rugby Boulevard.  
Bergen Line.  
Jarvis & Gerrard.

Yo,  
The tide rises in me, when the moon is full.  
I feel these lines bubble up, and overflow in my soul.  
I watch the wind when it caresses, the limbs and tree branches,  
Older than me.  
The city chopped them down last week.

I could’ve cried,  
My view from my window, it kinda died.  
Now I’m mourning at the altar of these days gone by,  
I fill my glass up with could’ve been, should’ve been wine.  
And got drunk off the illusion of time.

Entitled in the worst way.  
Living like my life is my own.  
We all thirsty, wonder why we don’t feel whole.  
Slowly emerging, the evidence we out of control.  
It is our children that inherit this all.

I want children in the worst way.  
Feel I should apologize though.  
Like I’m selfish or small-minded for not wanting much more.  
Or maybe it’s too much to ask, broken, walking on glass.  
Soaking up the curses and blessings of ancestors past.

A legacy that can last.  
We don’t see that too often,  
All my thirty-somethin’ peoples look around and feel lost.  
And why is that?

I had a thought but the beat came back  
I lost it, found in the music my senses get lost in,  
Often,  
Rambling with wisdom that’s older than all your logic.

Words are not the ultimate.  
Feelings distort the optics.  
Spiritually led to follow wherever my heart is.

And it took me on some detours, I still stay on topic.

You wanna hear something relevant, something obvious.  
I’ll tell you how my life got started,  
Aborted options.  
And this life ain’t all there is.  
There’s more to this than trending topics, I promise.  
You ain’t hear me though, right?

Let me get off this train I’m riding on.  
I missed my stop, just so I rocked this.  
Let my thoughts flow where the train go.  
Dundas to Bloor, and Royal York to the bus—73C.  
Where my parents rest ain’t the best,  
But that’s the option.  
And everywhere I nest, it feel like home when I get lost in this.  
Thank you for listening, my spirit can rest now.

Rectory Street.  
Trafalgar Court.  
Ewing Street.  
Churchhill Street.  
Bayshore Drive.  
Baseline.  
Her Womb.<sup>[53]</sup>

Excerpt from ‘Another Year (featuring Ian Kamau & Eternia)’,  
by Shad, 2019.

[53] Shadrach Kabango, “Another Year (featuring Ian Kamau & Eternia”, track 12 on *A Short Story About a War*, Toronto: Secret City Records, 2019, Compact Disc.

# INFRASTRUCTURAL STERILITY

## Examining the Greater Toronto Transit System

Straddling the sloping glacial shores of Lake Ontario sits Canada’s largest and most diverse city; Toronto. It is a sprawling urban and suburban amalgamation of neighbourhoods and boroughs with a municipal population of 2.7 million residents, and a metropolitan population of 5.9 million.<sup>[54]</sup> The city is known as one of the most culturally diverse and ethnically represented cities in all of North America, with some 150 languages and dialects spoken by it’s citizens.<sup>[55]</sup> In addition to this, it is also the fastest growing city in the country, with a 6.2% increase over five years, a full 1.2% higher than the national average of 5%, between 2011 and 2016.<sup>[56]</sup> The city has been, much in line with the meaning of it’s original indigenous Mohawk name, a meeting point; an intersecting headwater for immigrants, cultures, peoples, stories, movements, and all manner of identities to fashion it into a tapestried place, and a home.<sup>[57]</sup>

Around 9,000 years B.C.E, long before the six boroughs, ‘Hogtown’, and Toronto the ‘Good’, the lower great lakes ridges and moraines were occupied by nomadic hunter/gatherers on the fringes of the receding glaciers, tracking mammoths and caribou herds along it’s shores <sup>[58]</sup>

Eventually these first habitants would form parts of the Iroquois confederation, and settle into villages along the rivers and estuaries that flow into Lake Ontario, many of which have now been long built over top by today’s urban sprawl. A significant portion of a former Seneca village, known as Teiaiagon, was found in what is now known as the neighbourhood of Baby Point along the Humber

[54] The Canadian Press, “Canada Census 2016: Toronto growth well above the already high national average,” *National Post*, February 8th, 2017, [https://nationalpost.com/news/toronto/canada-census-2016-toronto-growth-well-above-the-already-high-national-average]

[55] Ronald F. Williamson. *An Illustrated History of It’s First 12,000 Years; Toronto* (Toronto, Ontario: James Lorimer & Company Ltd, 2008), 8-9.

[56] The Canadian Press, “Canada Census 2016: Toronto growth well above the already high national average”, *National Post*, February 8th, 2017, [https://nationalpost.com/news/toronto/canada-census-2016-toronto-growth-well-above-the-already-high-national-average]

[57] Ronald F. Williamson. *An Illustrated History of It’s First 12,000 Years; Toronto* (Toronto, Ontario: James Lorimer & Company Ltd, 2008), 8-9.

[58] Ibid, 25-29.



river and modern day Jane street.<sup>[59]</sup>

Following the colonial arrival of Europeans to Continental North America between the fifteen and sixteenth centuries, it was the French who first occupied the site of latter-day Toronto, establishing a modest, and doomed to fail trading post, before replacing it with Fort Rouille, but later abandoning this too after losing the seven years war in 1759.<sup>[60]</sup> Turning over to British possession, a new fort was erected along the shore by John Simcoe, the province's Lieutenant Governor, and named 'Fort York'. This would go on to form the initial basis for modern day Toronto's growth and spread across the surrounding area.<sup>[61]</sup> By 1851, Toronto had risen to a population of 30,800 people and extended as far North as modern day College Street.<sup>[62]</sup> Spurred by confederation, further colonisation and exploitation of the untapped lands and resources to the West, in addition to the advent of steam powered travel, Toronto was quickly becoming Upper Canada's wealthiest and most industrious settlement.

The rest, follows the trends of most other urban centres on the continent; with a rapid increase in population from rural to urban during the industrial revolution, suburbanization and detached home living following World War II, and the vertical heights reached by the building boom brought by finance capital of the 1980's and 1990's. Yet somewhere through the creation of the city as a permanent habitation, the palimpsest of buildings, and the expanding urban footprint, came a need for movement beyond the axial grid systems of the city plan.

[59] Ibid, 50-52.

[60] Ibid, 54-59.

[61] Ibid, 65-72.

**[Fig 21]** Opposite: Painting of the late afternoon sun along the Don Valley River in Toronto circa 1855, the cusp of Western Industrialization, by Mary Hastings Meyer.

**[Fig 22]** Next Page: Groundbreaking ceremony of Canada's first subway, the Yonge Street rapid transit line, from Union station to Eglinton Avenue, 1949.









Unlike New York City, London, or Paris, Toronto did not get its own subterranean mass transit system until March 30th, 1954.<sup>[63]</sup> Work began in 1949 on the twelve stops between Union station North to Eglinton Avenue, with a combination of underground and aboveground rail sections.<sup>[64]</sup> The subway however, was not where Toronto's transit infrastructure saw its beginnings. In 1849, the first private omnibus company, started by H.B. Williams, ran horse drawn services between St. Lawrence Market and the Red Lion Hotel in what is now Yorkville.<sup>[65]</sup> This initial means of privately operated transportation was replaced over time with the interest and advent of electrification, through the implementation of streetcars, many of which are still in service today. Several competing companies sought contract rights to install their embedded road rails and run their services in direct competition with one another.<sup>[66]</sup> The service was certainly more agreeable an upgrade than the omnibus carriage services, yet the disjointed services of competing routes made travel and transfers challenging, especially with competitive fare pricing. Similar to New York City, the municipal government sought to dissolve the fractured assets of the different companies

[63] Ibid, 109.

[64] Toronto Transit Commission. *Wheels of Progress; 5th Edition* (Toronto, Ontario: Toronto Transportation Commission Ltd, 1953), 103-109.

[65] Toronto Transit Commission. *Wheels of Progress; 5th Edition* (Toronto, Ontario: Toronto Transportation Commission Ltd, 1953), 1-5.

[66] Chris Bateman. "A Brief History of the Toronto Transit Commission" *BlogTO*, August 31st, 2013, [https://www.blogto.com/city/2013/08/a\_brief\_history\_of\_the\_toronto\_transit\_commission/]

[67] Ibid.

[68] Ibid.

[69] Ibid.



[Fig 23] Above: Photo of the classic TTC logo, unchanged with its overlapping serif letters, taken outside Bay-Yonge station, 2018.

into a single transit commission; The Toronto Transit Commission, appointed on September 1st, 1921.<sup>[67]</sup>

During the 1960's, the second arm of the Toronto subway was completed running East and West along Bloor street from Keele to Woodbine, while the Yonge line began to tunnel its way North from Union under University avenue.<sup>[68]</sup> After this era however, subway planning and funding become contentious amongst citizens with proposals like the controversial Spadina expressway, the unpopular Scarborough elevated rail, and the unfunded Sheppard line. Eventually some form of these three proposals was eventually built, with the Yonge line being extended towards Finch and Vaughan, the Scarborough LRT connecting that borough with the Bloor line, and the Sheppard line tunnelling just five stops with the rest of its phases unrealized.<sup>[69]</sup>

As it stands the TTC operates four rapid transit lines, with 75 stations, 304 kms of streetcar lines, and 170 bus routes, with an average yearly ridership of 416 million people. However, this document is not meant to concern itself as much

with the physical occupation of the subway as a functional entity, or ask whether or not it is comprehensive enough in plan and ridership use. Instead, we must determine and establish the social scope of the subway, in order to critique it as a manifestation of the waning public space of our cities.

For the purposes of our categorizing and discussing the history of the subway and its station designs, we shall identify three distinct periods of construction, from 1954-1968, 1974-1996, and 2002-present. These three periods in time represent the windows of spatial consideration in typology of the generalized station architecture, from the first subway stations of the 1950's and 60's, the suburbanization of Toronto into the 1980's, and the modern day stations including

the final extension of the Yonge Line towards Vaughan, completed as recent, as 2017.

The first stations, especially the twelve original ones from Union station to Eglinton Avenue in 1954, were built with function as the driving design influence. The minimally flourished and modest designs of the original Yonge and Bloor Line stations borrowed heavily from the International style for above ground structures, with curtain walls and steel lintels, and modernist efficiency for the below ground platforms. There was very minimal interior space between the threshold of entrance and the platform, with small concourses and intimate stairways leading above ground. The textiles are what received the most attention, creating uniform matching schemes for stations with iconic lettering and typology,



[Fig 24] Above: Photo of of Dundas Station prior to opening. Toronto, 1953.

without being flashy or extravagant. The stations however, had but a single program focus in mind; movement.

Whatever design was implemented for these spaces, the form came second to the function, and it was a function primarily concerned with transporting the masses. The occupation of the space was meant to be temporary, but through their lack of committed habitable program, these stations were actually able to provide some of the most robust social place-making in the city. The confined spaces, blank as a sheet of paper and unobstructed with decoration, mirrored in many ways the open plan of the plaza. These brief openings, emerging from the tunnels were in many ways analogous to the apertures of city plans, with streets and blocks that widened to allow for the confluence and meeting of the cities inhabitants. Yet it is still an architecture unresponsive to the actual social habitation that it permits; impartial to activity, yet partial only to its utility.

The following period of subway construction began sometime in the 1970's and lasted until the mid 1990's, with various creeping extensions North along the Yonge line towards York Mills and Wilson Avenue, as well as further extensions East and West along the Bloor line to Kennedy and Kipling, respectively. Perhaps the most polemical of these additions, was the Spadina and Allen expressway portion, from Dupont to Wilson. Originally, the city of Toronto had planned a sister freeway to the Don Valley Parkway from Highway 401 south to Davenport, and eventually linking up with the Gardiner Expressway. This multi-lane road would have severed various neighbourhoods including Cedarvale, The Annex, Kensington, and historic Lower Spadina.<sup>[70]</sup>

[Fig 25] Top Left: Turnstyle entrance to the lower Union Station platform, prior to its opening in 1953.

[Fig 26] Bottom Left: Lower Union Station platform, prior to its opening in 1953.

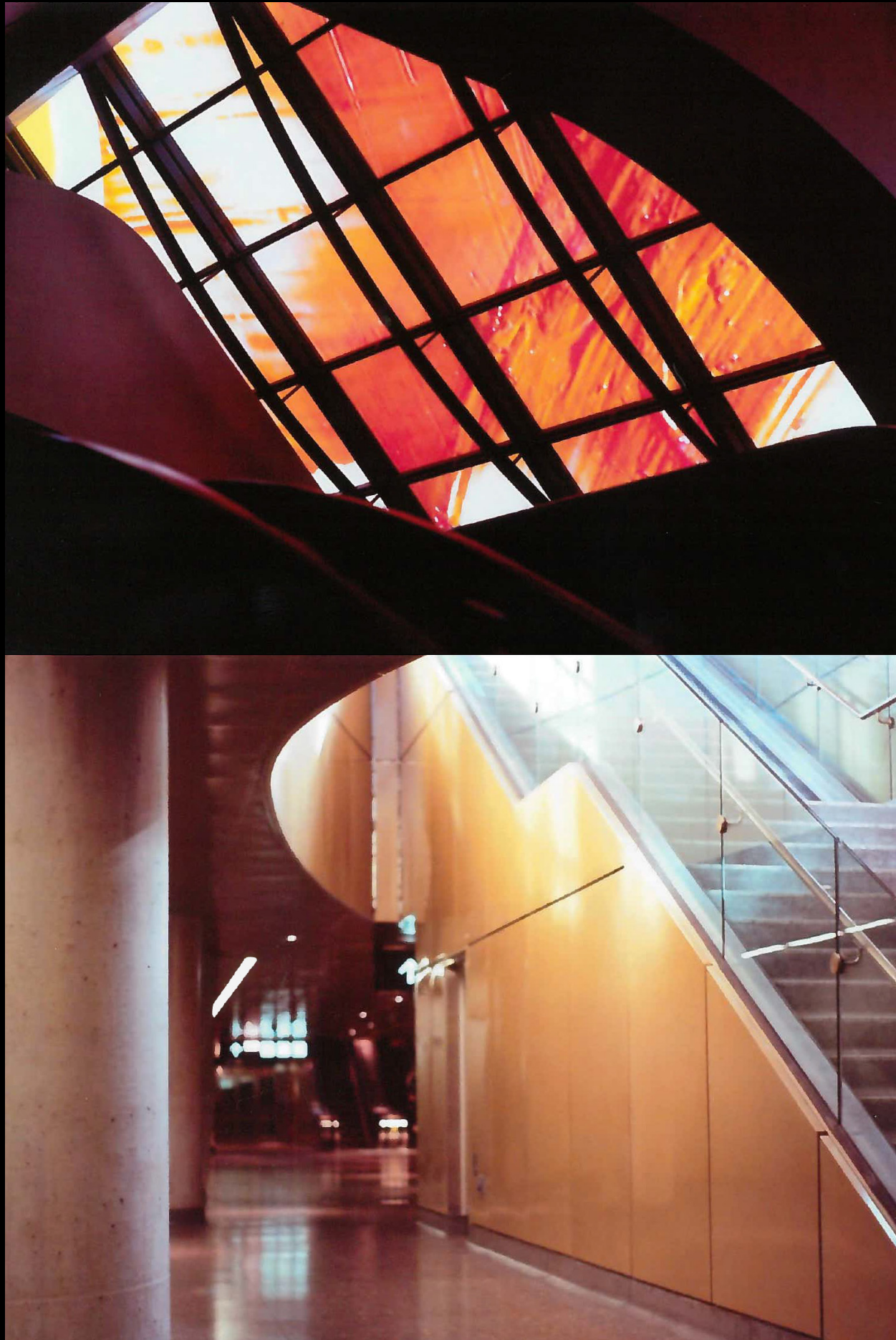
However, the project was never fully realized, with the Allen parkway ending at Eglinton Avenue, in part thanks to grassroots activism and neighbourhood organization championed with solidarity from prominent figures like Jane Jacobs.<sup>[71]</sup> What remained for the subway, was to follow the corridor set forth by the Allen with an above ground treatment and several exposed brutalist stations, some by prominent Canadian architects like Arthur Erickson (Yorkdale Station). These stations, featured heavier tectonics and a harsher materiality, favouring concrete and monumental construction with large spans, and thick columns. The architecture began to inch towards an acknowledgement that people would inhabit these spaces, with improvements to lighting, seating, and even public art installations adorning the walls and providing unique moments of discovery. The distances between the platform and the concourse were liminal, and blurred, equalizing the flow between entrance and departure. However, as much as these stations provided in an exemplified character and consideration to the experiential and inspired quality of shared public space, many of them felt alienating and inaccessible. That their monumentalism required revere and prestige without an ability to fully interact with openly or casually. It must of course also be mentioned that the habitation of subways is closely related to surrounding density. As the subway extended further and further into the suburbs, the radial number of people living in proximity to farther flung stations, were comparably smaller than elsewhere in the city centre. This is noted in the evaluation of the effective sociality of all stations discussed.

The most recent era of subway construction along the TTC, is defined first in excess, and second in hindsight, earmarked in 2002, with the completion of the Sheppard line or dubbed “the

<sup>70]</sup> Ibid.

<sup>[71]</sup> Ibid.





subway to nowhere”.<sup>[72]</sup> The line, proposed and pushed for by former Mayor of pre-amalgamated North York Mel Lastman, was supposed to extend East along Sheppard Avenue connecting the Northern Yonge Line to Scarborough Centre Station, the terminus of that borough’s elevated rail line.<sup>[73]</sup> But the project was cut short of it’s original goal, instead, giving up halfway down the avenue, in a standstill between being too expensive to give up on, and too expensive to add on to.<sup>[74]</sup> The gamble, was not that the Sheppard Line would provide meaningful social habitation in North York, nor even that it would benefit the cities transit by reaching immobile populations and providing access to movement to reduce car load and vehicle traffic, but that it would it lead to a localized development boom.

Following the millennium and subsequent housing bubble, stock market crash, and housing resurgence (post-2008), transit is now an arguable means for development and commercialization, affixed to a public price-tag. The excess, in projects like the Sheppard Line, comes from big public budget transit infrastructure aimed at juicing proximal property values, and the hindsight, comes from poor implementation and prioritizing of transit needs in the city. Station designs hinge on trends and “future development”, without any established realm for current or existing public use. Another example is the most recent Yonge Line extension North towards Vaughan, where 3.2 billion dollars was spent constructing just six new stations, with an end terminus in empty fields of undeveloped land.<sup>[75]</sup> The stations along this portion of the route, all designed by separate architects, are meant as individualized spaces, where form comes before both function of movement and function of social consideration. The

[Fig 27] Top Left: Overhead coloured glass feature above the platform escalators of Highway 407 Station. Toronto, 2018.

[Fig 28] Bottom Left: Main concourse and hallway of Pioneer Village Station. Toronto, 2018.

stations bleed with wasted space, and lack of scale consideration. For example, the terminal station, Vaughan Metropolitan Centre Station (a name as unnecessary as the space it is attached to), has but seven seated benches for a space with three separate concourses, in addition to the platform, and a connecting bus terminal. The oversized feeling of these spaces, are similar to that of underused malls, where the design is focused on the image of being a social space, rather than providing one.

Regardless of critique across any and all stations of the TTC, it must be understood that they all exhibit a social reading in one expressed way or another. Some, much weaker than others, yet all human interaction with the space, can be read as a public one. The earliest of Toronto’s subway stations, provided a neutral territory for social active life in parallel to the typology of the urban plaza, utilitarian, but not so much as to hinder other functionally social aspects of the station. Following this, stations began to adorn themselves and assign a greater place making, and monumental experience with mixed overall results, making considerations for experiential qualities, but producing a feeling of uncomfortable ostracism in their assembly and enclosure. Finally, the most recent iterations of station design mimic the ideals of urban sociality, to create striking and boundary pushing contemporary spaces, that are at most visual art pieces void of much in the way of responsive or generative activity. Rendered and sold as commercial distillations of a developers sales pitch

[72] Ibid.

[73] Ibid.

[74] Ibid.

[75] Christopher Hume, “Toronto’s new subway extension is beautiful, but it’s not the line we should’ve built”, *Toronto Star*, December 19th, 2017, [<https://www.thestar.com/opinion/star-columnists/2017/12/19/torontos-new-subway-extension-is-beautiful-but-its-not-the-line-we-shouldve-built.html>]



that this station is “different” and “happy” and “special”.

Again, without begrudging these stations for being born into service of low density areas, their stark underuse highlights both the hindsight and the excess of their existence. These large and hollow spaces, costing billions in public private partnerships, are directed at providing unrealistic experiences in boroughs that cannot sustain them, perhaps for decades to come. The purpose of which, fuelled by a need to capitalize on prospective real estate venture, as opposed to the benefit of mobile accessibility in the city and the bridging of the underground public realm, to the aboveground as a collective good. This thesis is not arguing that transit costs too much, it should cost a lot, and it should be comprehensively spent, but we must ask how much we are getting for these publicly funded costs. Is the design and implementation of these transit spaces truly effective? Do they respond to the public nature of the city? Are they passively neutral, or do they play a greater role in influencing urban social life as a legitimate paragon of the densifying city experience and the shrinking public stage? How can we shift our thinking, our priorities, and our focus on infrastructure as an opportunity for design, instead of an opportunity for capital or private luxury development?

**[Fig 29]** Top Right: Passengers crowd at Union Station waiting for the Westbound Hamilton GO train for the evening commute home. Toronto, 2018.

**[Fig 30]** Bottom Right: Passengers exit and enter the Northbound Yonge Line train to Finch, at Bloor-Yonge Station, during the evening commute. Toronto, 2018.



## A NEW STATION

## PARADIGM

### *The Proposal*

As mentioned earlier, the goal of this document is to provide a didactic analysis of, and response to, existing subway architecture, questioning both the role it currently plays, and the role it could play in influencing, heightening, and shaping the social quality of our urban spaces. Accepting that urban infrastructure does in fact play a role in the public realm, both as a space for social interaction, and a place for shared collective importance, we can begin to interpret its manifestations differently, along different lines of consideration. In doing so, we shall take a single station embedded along Toronto's rapid transit system, study its history, program, site, and social habitation, before proposing an alternative spatial treatment and responsive architectural design, enhancing, highlighting, and improving the existing station's conditions. For this purpose, Spadina Station was chosen as our area of focus, exhibiting high volumes of daily riders, as well as various intersecting routes of travel from various means of transportation (buses, streetcars, & subways). It should also be noted that this proposal, as complete in its analysis of the this particular site is, cannot be replicated elsewhere, nor is it supposed to. The instructive portion comes from the intent

of the proposal, the theory behind its views and the way that subways ought to be viewed and designed for, with prominent social consideration in mind. It's a way of shifting our thinking, and leading by example, to showcase the untapped potential many, if all of these spaces hold, in their current urban placement as infrastructural elements.

Spadina Station, constructed as part of the nineteen stop addition from Keele Street to Woodbine Avenue of the East-West Bloor Line, was officially opened in 1966 at the intersection of Bloor Street and Spadina Avenue, in the neighbourhood of the Annex. The station building, among others during this period, was designed by Parkins Architects of Toronto, building a simple and modest brick and stucco box with large curtain wall windows facing towards Bay Street.<sup>[76]</sup> Originally, the station was only in service for the No.2 Bloor line, but because of its proximal tunnel location to the nearby No.1 University line,

[76] Robert Moffat, "MOD TORONTO: Art and architecture on the Spadina subway," *Spacing Magazine*, July 3rd, 2013, [<http://spacing.ca/toronto/2013/07/03/mod-toronto-art-and-architecture-on-the-spadina-subway/>]





[Fig 31] Above: Photo of the original Spadina Station entrance, 1975.

a second platform was built a couple hundred metres to the north, with a separate entrance designed by Adamson & Associates.<sup>[77]</sup> A 150 metre tunnel was dug underneath Spadina Avenue, to connect the separate platforms and provide a linkage between the different lines. In addition to this, a bus loop and terminal entrance was built opposite to the original building from 1966, to accommodate the implementation of newer city bus routes. The station was again modified in 1997 to include a platform and subterranean loop within the main concourse, for the 510 Spadina Streetcar, adding a fourth level of transit intersection. Currently, Spadina Station boasts a total of five entrances, connections between all three levels of transit from heavy rail to bus, and sees an around average of 44,560 passengers a day.<sup>[78]</sup>

[77] Ibid.

[78] The Toronto Transit Commission, *Transit Planning. Subway Ridership - 2018*. (Toronto: Toronto Transit Commission, 2018).

The station is within the immediate vicinity of the University of Toronto campus, and reference library, the Miles Nadal Jewish cultural centre, the Toronto Ba'hai centre, The VENMU Museum of Estonians Abroad, the Bata Shoe Museum, and a first nations social housing unit and Reference Library. The station is non-uniform, unique, and wide reaching in its physical scope, taking over the entire intersection of two of Toronto's busiest roads, and offering a social nexus for the existing aboveground neighbourhoods, businesses, and diverse centres of culture. It is an infrastructural palimpsest, serving as a focal point for the locale it serves, and connecting it to the larger breadth of the cities urban fabric.

To tackle a design treatment for this station required a keen understanding of the activity and social participation of the space through field observations and stringent recording. Due to strict Municipal City guidelines affecting access to information, the plan and section drawings for

the station were unavailable for viewing, leading to a series of rigorous and rudimentary measuring exercises to mass out the existing dimensions of the space. Spadina station sees most of its foot traffic in mornings, with commuters coming from the North getting off at the Line 1 platform and marching down the 100 metre tunnel to connect with the Bloor Line and/or wait for the Spadina streetcar in the main stations concourse. The concourse also features both a gateway newsstand vendor beneath the Bus Terminal building, and a coffetime sandwich and coffee vendor beneath the 1966 original entrance. Two elevators and four sets of stairs descend to the Bloor Line platform, managing the bulk of the stations uses throughout the day. Low, and unfinished ceilings punctuated with harsh fluorescent light paint the polished tile floor with eerie glows reflected off forest green columns and white tile walls. Modest accents of Bauhaus primary colours and signage are tested and tempted by some these walls, but not fully repeated elsewhere in the station as a motif.

The No.1 Spadina Line, is the far less used platform of the station. With both of its entrances a block North of the major Spadina and Bloor intersection, it is not a fully accessible station, and most passengers who get off here, only do so to connect with the Bloor Line through the station proper. The entrance to this side of the station is through the former front doors of a converted historical house of the Annex, gutted with a re-tiled interior during the stations upgrades in the late 1970's. In a noble move for the time, the house was lifted, moved for subterranean construction, and re-placed with a gutted interior, saving the house and incorporating it into the infrastructural station design. The station has several two-person red benches throughout the platforms and concourses (however none were observed in the North Spadina entrance and concourse), but not nearly enough to offer a decent amount of sitting spaces given the volume of the station. The station offers two areas to purchase food, beverages, mag-

azines and snacks, but there is nowhere to really sit, eat or rest. Furthermore, the act of busking and performance in this space is heavily policed and controlled, relegating performers to auxiliary demarcated floorspaces that one must register to use. This policy however, is present in all TTC stations thereby taking the pride and organic nature of performance and turning it into a sidelined display without dignity or artistic freedom. The station overall, socially survives thanks to its high traffic, density, and intersecting lines of transportation. Yet the architecture, not so void of intimacy as other stations in the city, still lacks the language and suggestive design to influence and encourage highly needed social interactions, replicating the public forum, and plaza, underground.

For this proposal, three identified interventions were drafted and co-ordinated based on the above social observations and hand measured dimensions of the space, to accommodate the social disconnect the station currently fosters. The three notions of importance highlighted for edit, include performance & entrance, market & consumption, and flow & rest. These three interventions seek to celebrate and legitimize in incorporative ways the social aspects of the existing station through an enhanced design treatment of its social experiences. The hypothetical nature of this proposal takes the imaginative liberty to wonder what the station could currently offer and look like, had these habitation patterns been originally considered when it was excavated fifty years ago.





[Fig 32] Above: The Intersection of Sussex Avenue and Spadina Avenue. Toronto, 2018.

[Fig 33] Below: Robert Street Park with low and high rise housing in the foreground, downtown in the background. Toronto, 2018.



[Fig 34] Above: Bell tower of Trinity-St. Paul's United Church. Toronto, 2018.

[Fig 35] Below: Bloor Street looking West. Toronto, 2018.







[Fig 36] Above: Spadina Station Gateway Newsstand and Confectionary. Toronto 2018.

[Fig 37] Below: Spadina Station, Kendal Avenue Entrance concourse, featuring Caribou Quilt Art. Toronto, 2018.



[Fig 38] Above: Spadina Station, Gitskan First Nations Totems. Toronto, 2018.

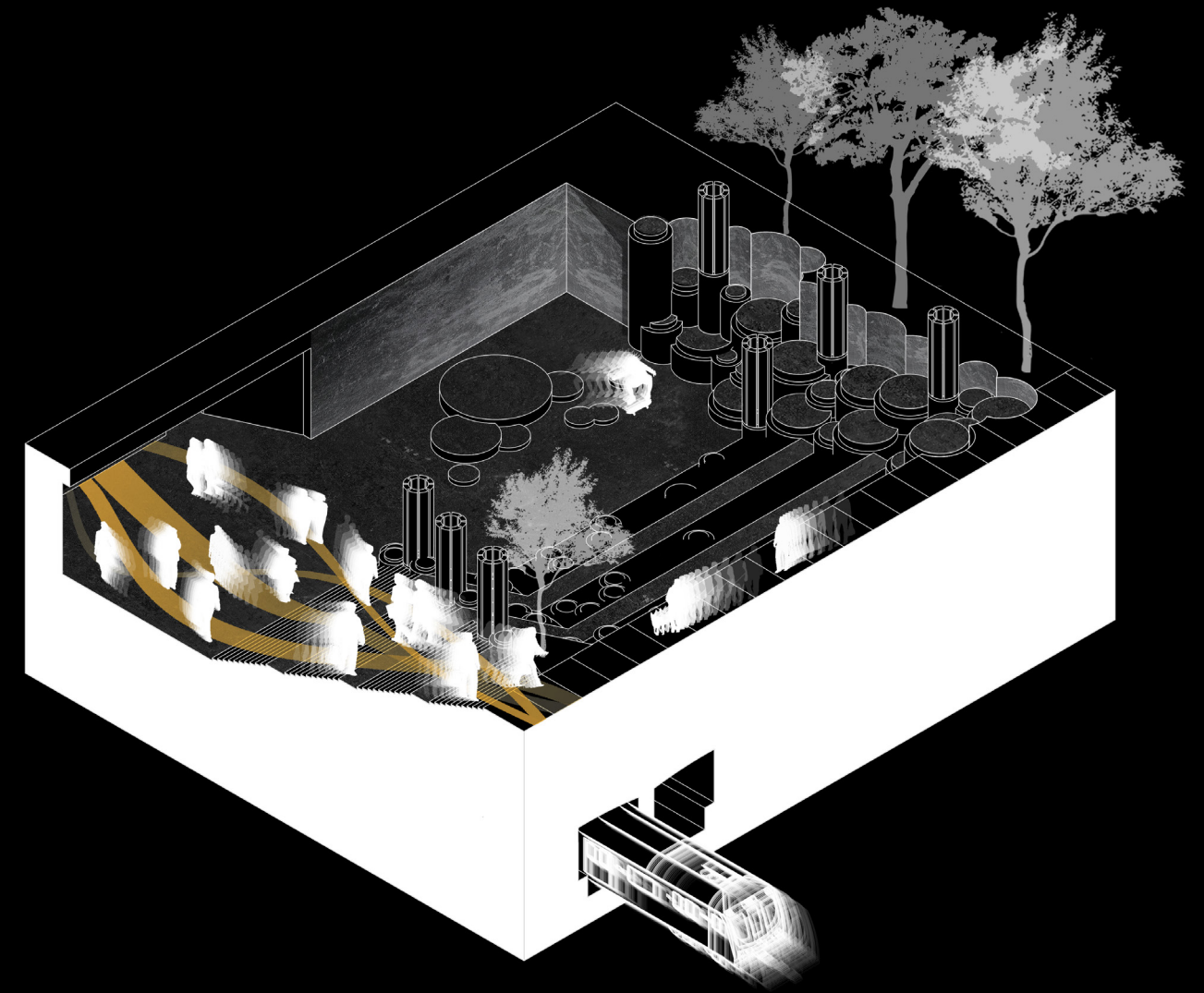
[Fig 39] Below: Spadina Station Bus Terminal windows. Toronto, 2018.



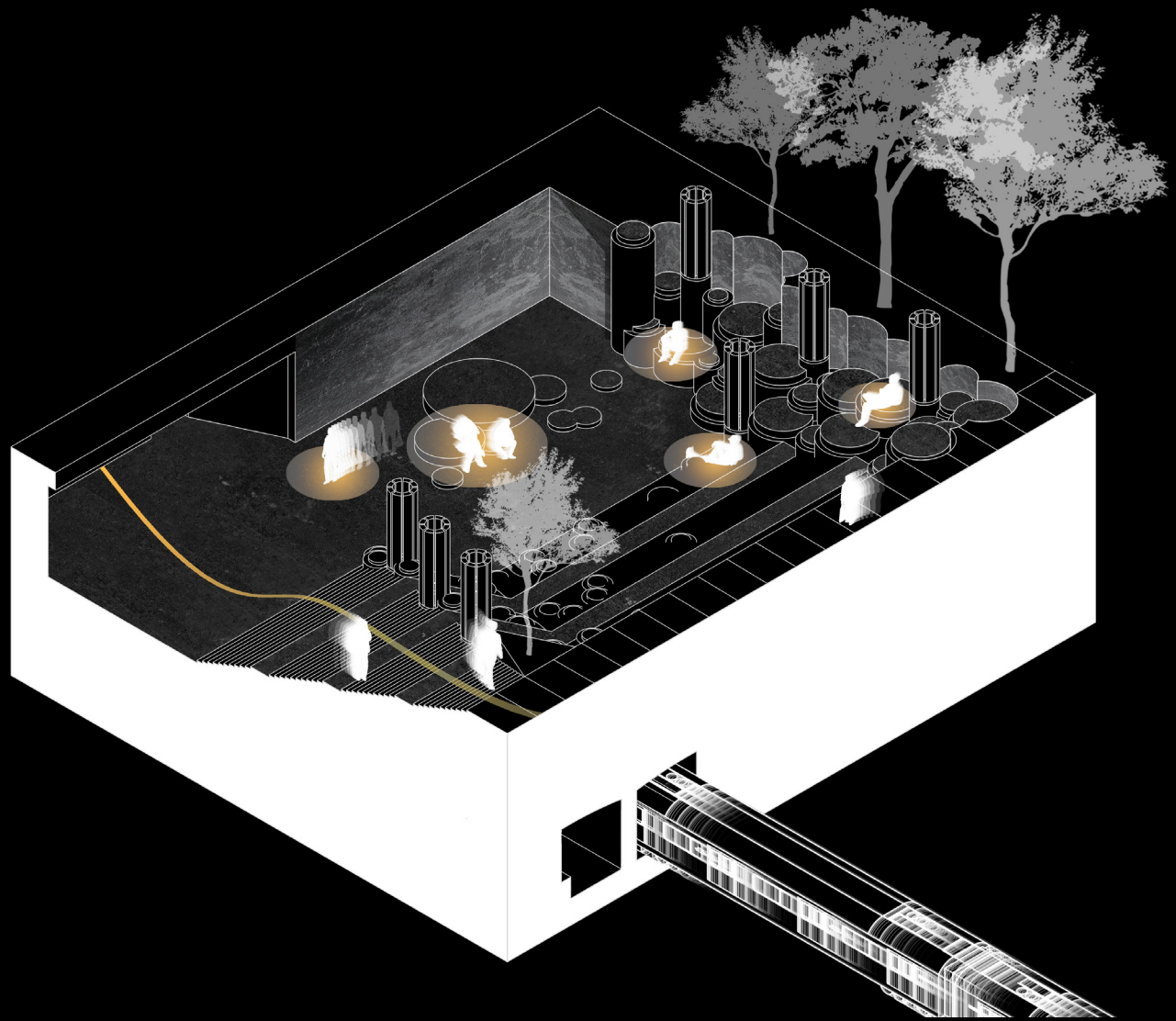


The first and immediate move, requires shifting the entrance of the station to its rear, taking over the under utilized public park behind it and sinking a gestural amphitheatre into it descending to the main concourse of the station. Currently, the main entrances of the station are the brick and stucco bus terminal and original structure from 1966. However these thresholds lack an expansive and open quality to them, hiding the interior connection with the underground they hold. Paul Martel Park, the non connected green space behind the station, was a product of the cut-and-cover construction method of the original tunnelling process, whereby the City of Toronto had to expropriate and buy lands along the tunnelling corridor to allow for cut openings to build both the stations and the tunnel infrastructure itself.

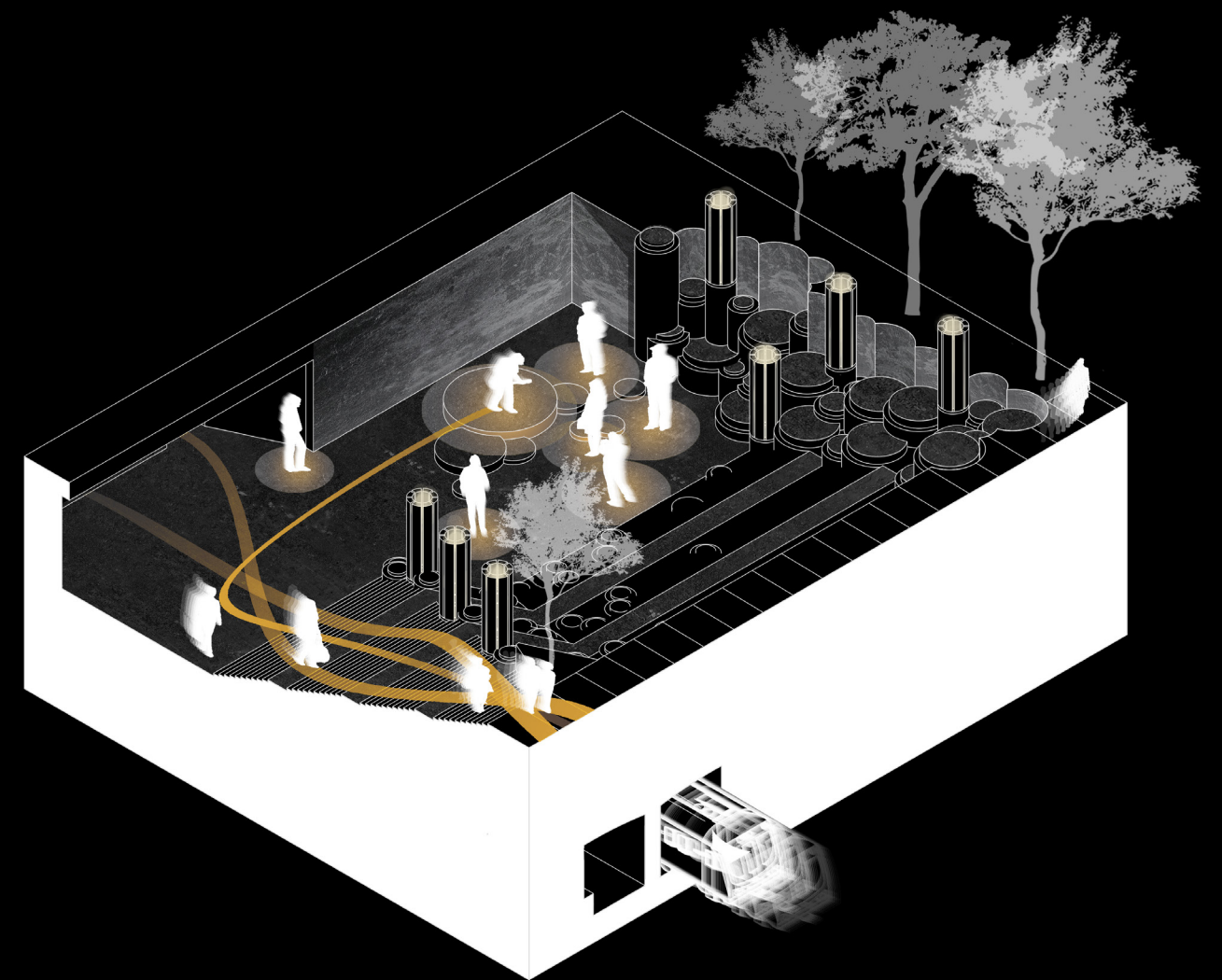
After construction was finished however, many of these covered lots were eventually converted into small parquettes, with sod, saplings, and benches as an attempt to add to the public realm of the neighbourhood. Instead, this proposal imagines the park as serving a new public function, acting as the main entrance to the station, creating a tectonic sense of emergence and recognized vertical depth to the descent below ground. Inspired by the works of Aldo van Eyck, the sunken courtyard and amphitheatre features a series of scaled and concentric sitting pads, implying and nudging towards the idea of stage, and seating. A terraced berm occupies a majority of the outdoor space, open to all those who wish to rest and observe, people-watch, or enjoy their lunch. To light the space, the shape of these concentric circles was repeated and extruded to form a series of complimentary light tubes. The tubes, all with slight lacerations in their vertical columns, allow for the filtration of light from within, illuminating the sunken space at night.



[Fig 40] Above: Spadina Station Entrance Proposal. Axonometric Section View, showing morning habitation.



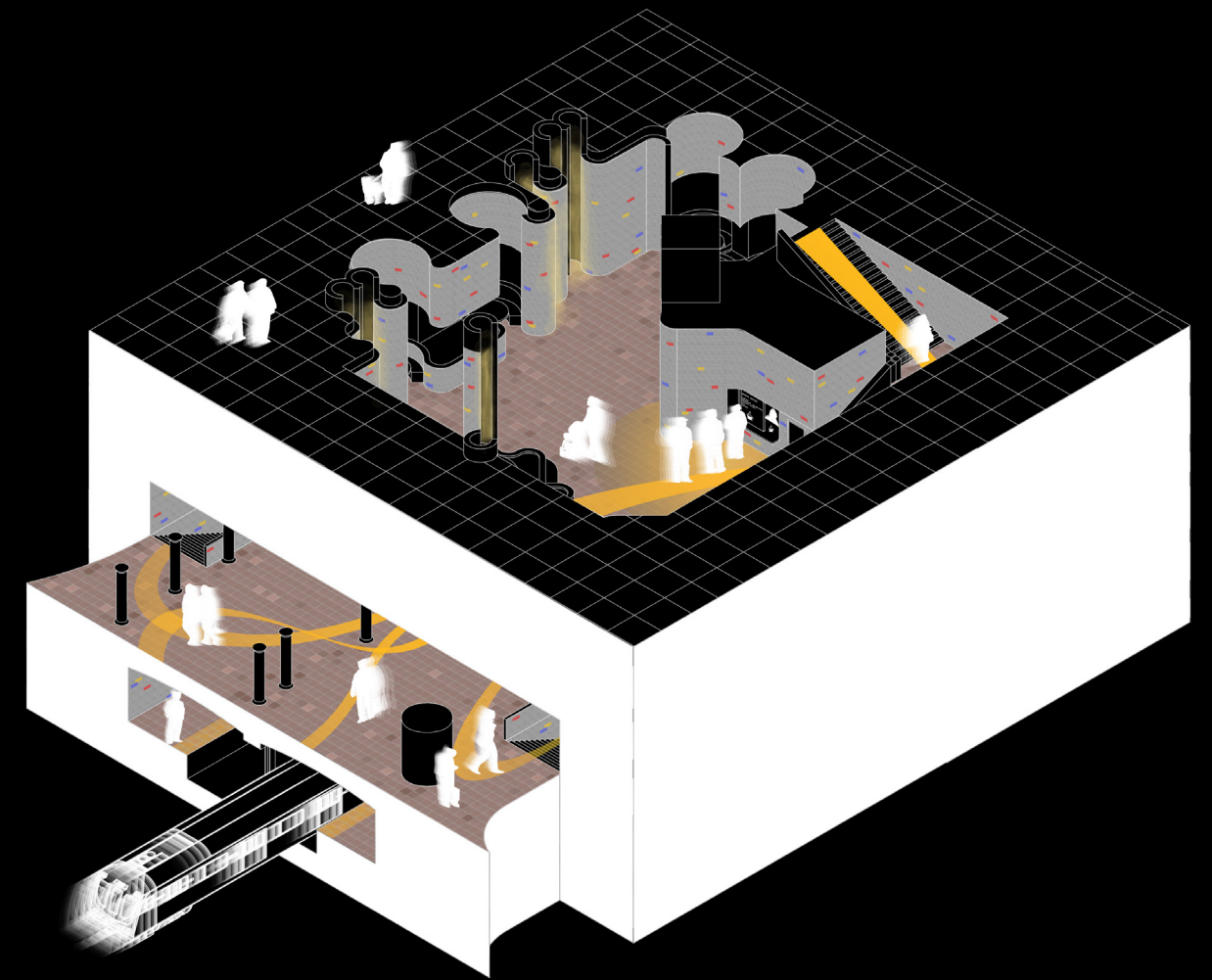
[Fig 41] Above: Spadina Station Entrance Proposal. Axonometric Section View, showing afternoon habitation.



[Fig 42] Above: Spadina Station Entrance Proposal. Axonometric Section View, showing evening habitation.

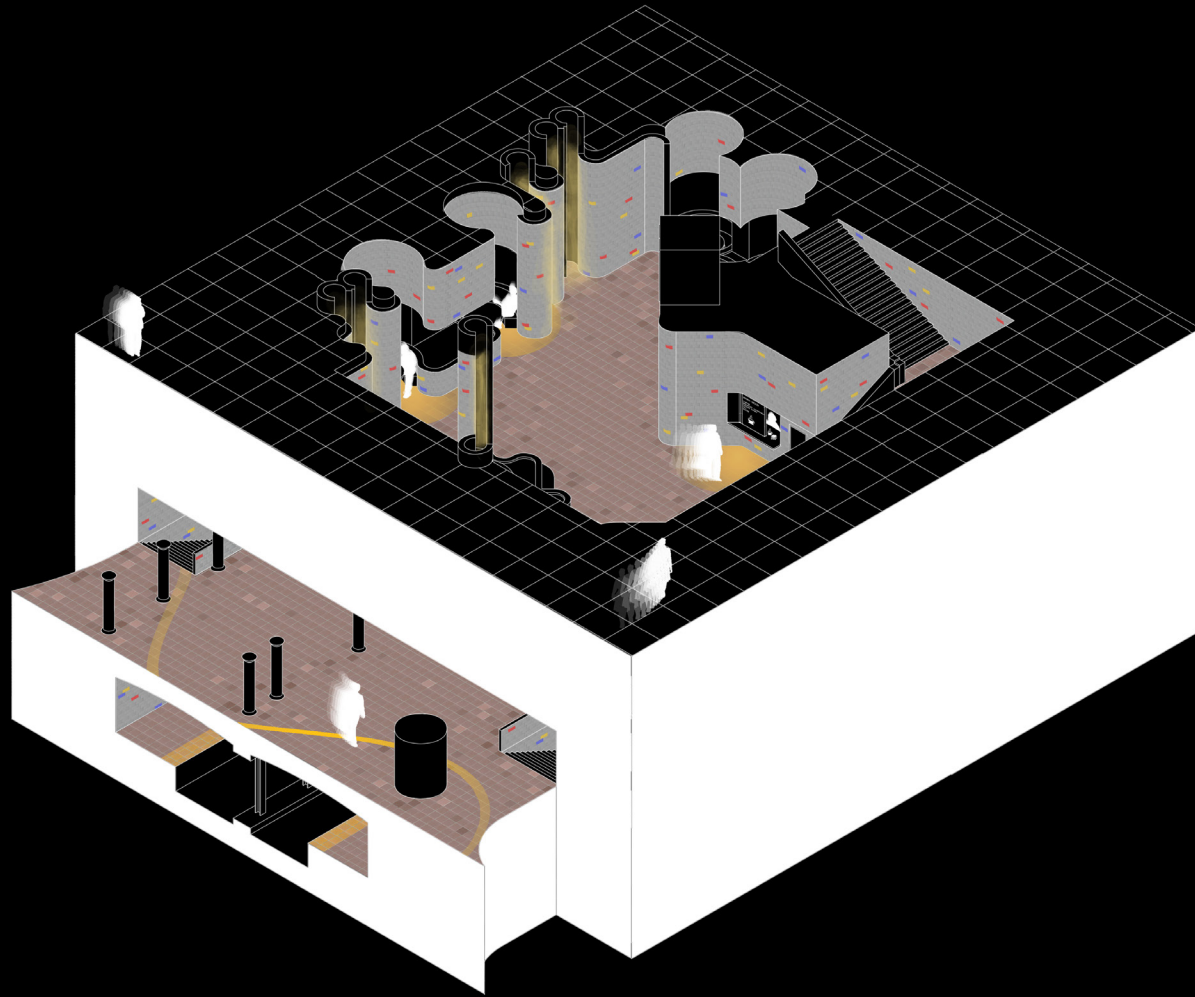
From this main entrance, just one level down, we move into the main concourse of the space, still largely untouched for our purposes. The columns and immediate space beyond the threshold of the front doors still allow for the major transfer of people outwards and upwards, or down into the whirring labyrinth of tunnels just below. Beyond this however, underneath the original entrance from 66', a double height ceiling dining area has been excavated, with an adjacent Montréal style dépanneur, with time specific program to accommodate the morning coffee rush, the noon lunch rush, and the evening grocery rush.

The pull down cover for the counter acts as a folding facade that can change throughout the day to interact with and combine the various edible confectionary needs passengers may have along their commute or path of travel. Furthermore, the surrounding space of the dépanneur includes a second elevator shaft to grade level, an open and visible staircase, and various benches and table seating arrangements built off the initial concentric circle plan, to generate interactive curvatures and niches. Being built outside the main path of movement in the station (the tunnel from the Spadina platform to the Bloor), the area can retain a social sense separate from the major paths of flow through the space. Extruded circles again perforate this space, puncturing above ground and allowing natural daylight to shine into open space. At night, this feature reverses, where the tops of these extruded hollow columns, release the internal light of the station, back outside along the side walks and road.

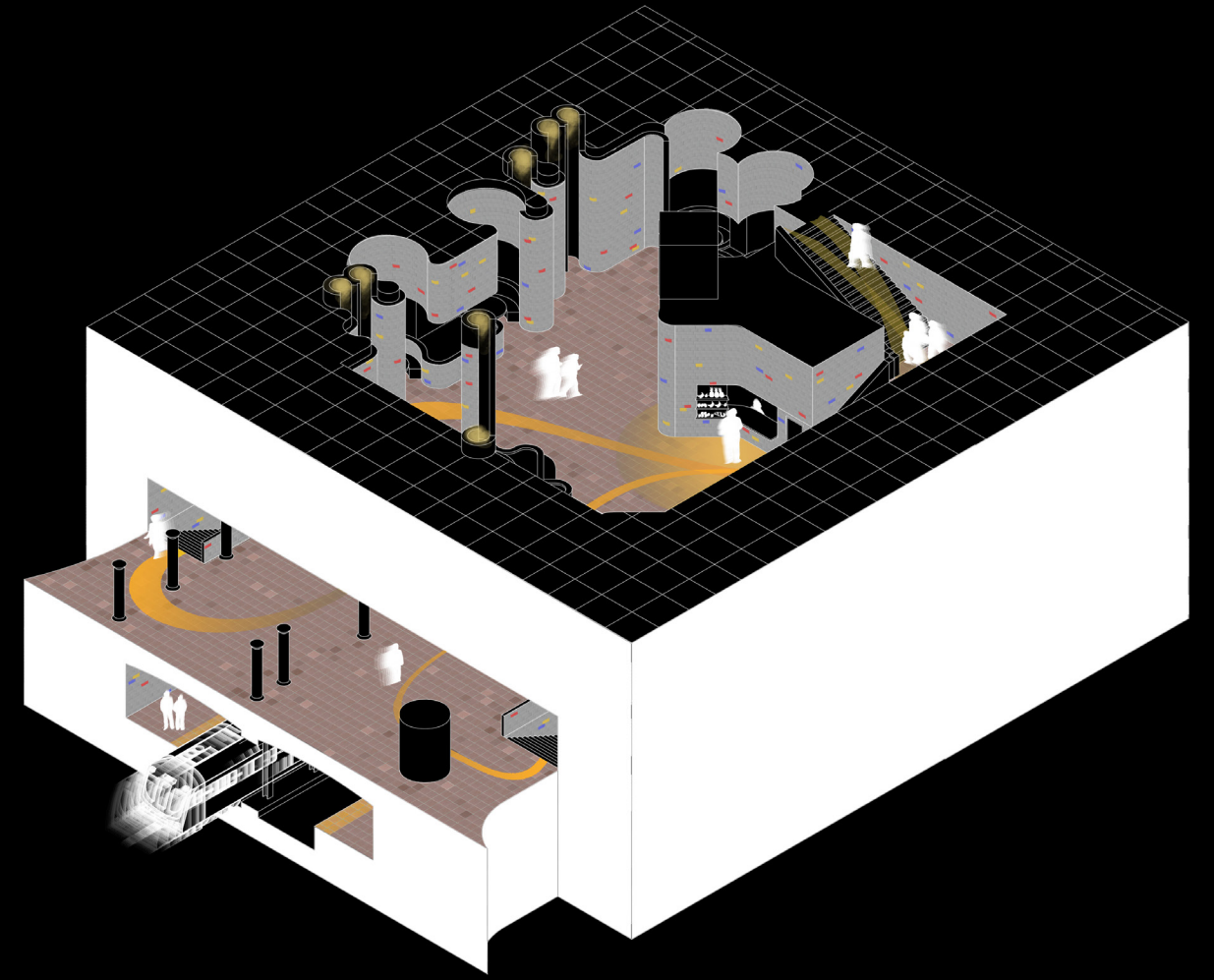


[Fig 43] Above: Spadina Station Dépanneur Proposal. Axonometric Section View, showing morning habitation.





[Fig 44] Above: Spadina Station Dépanneur Proposal. Axonometric Section View, showing afternoon habitation.



[Fig 45] Above: Spadina Station Dépanneur Proposal. Axonometric Section View, showing evening habitation.

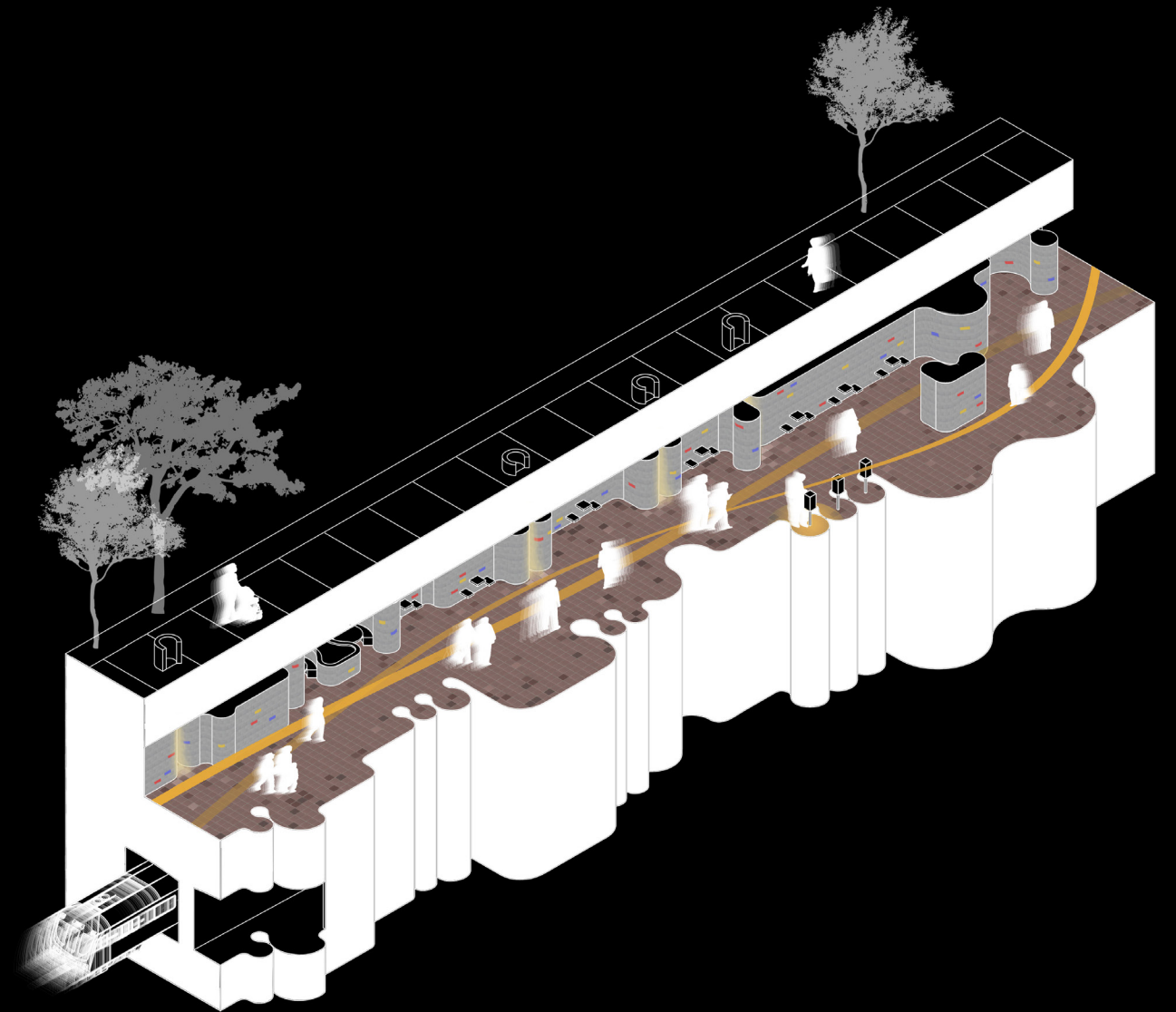
Lastly, rounding out the third of these installations is the blank and completely lifeless hallway connecting the two platforms. Incorporating the curving and flowing movement of the circles into its enclosure, the hallway meanders and pockets itself between the far flung reaches of the opposite platforms. An invariable living wall is created, where scaled nooks and niches reveal themselves in the undulations along its sides, providing the cover and cause for social interaction across multiple levels, and with multiple settings of individuals.

The problem, with the existing tunnel is that it was born again solely from the function of transporting people from one platform to another. During the 1970's, a moving walkway was installed along it, to make the distance easier and more manageable. Yet it was removed in the early 2000's due in part to teenagers taking their bikes below ground, and gunning themselves at double velocity along the walkway before wiping out; an insurance liability the TTC wasn't keen on keeping, in addition to the mounting maintenance costs of up-keeping an underground moving sidewalk used by 11,000 people a day.<sup>[79]</sup>

However, it was this strict functionalist approach that kept the largest part of the station's interior space from realizing or providing any social mileage. Typologically, the hallway is reminiscent of an underground boulevard, but without trees or grass or bike lanes. Instead, the stipulations of use being defined complimenting rest as well as travel. Tables, benches, phone booths, and even cantilevered chess tables and seating, aim to provide a neutral but available program for social activity, even within a space as functionally specific as a simple and unambitious hallway.

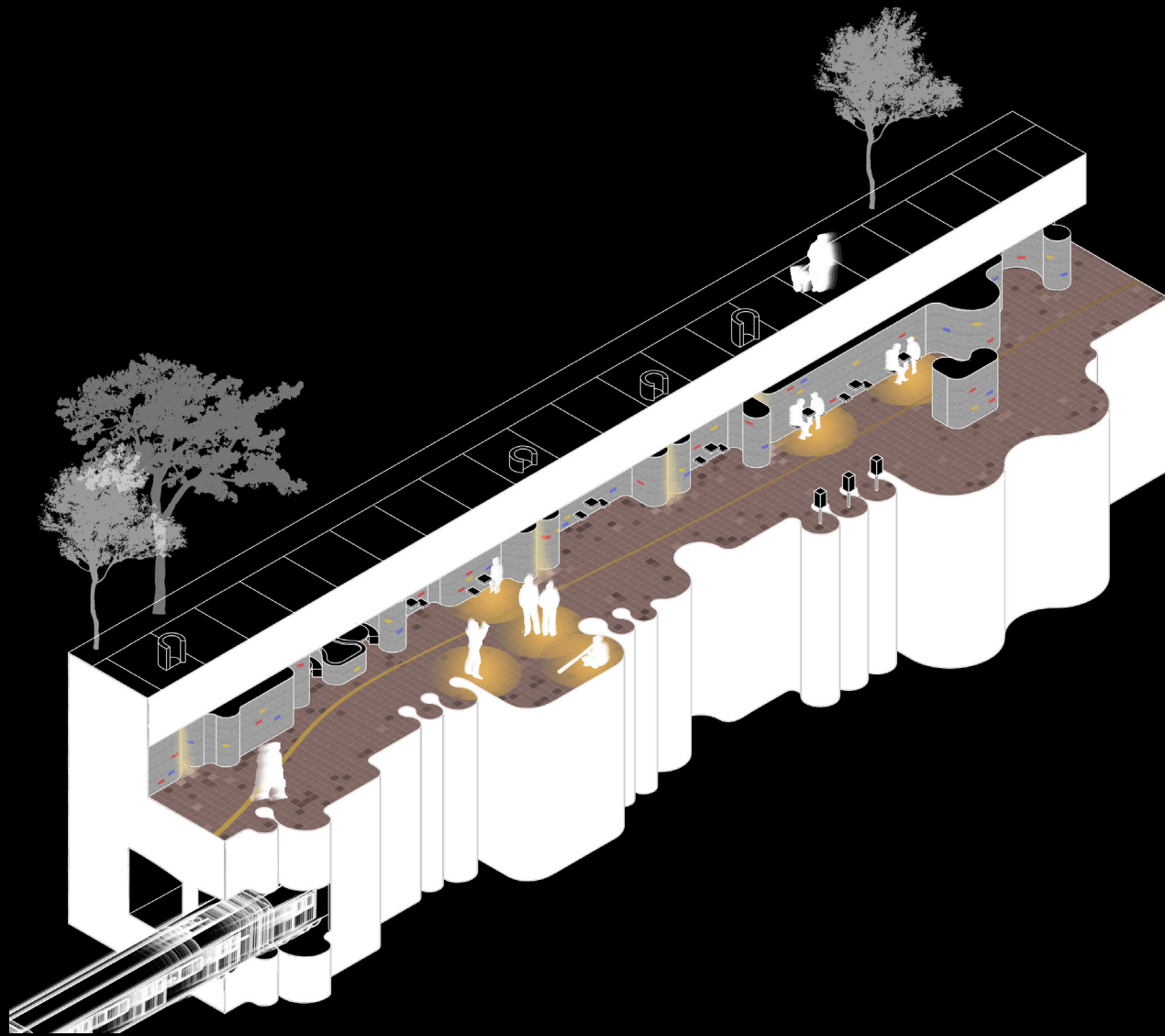
Tubular extrusions from the wall again penetrate above ground to bring much needed natural light into the space, emanating from asymptotic curves in the wall, in addition to releasing light to the sidewalk above, once night has fallen.

[79] Derek Flack, "That time the Toronto subway had a moving sidewalk", *BlogTO*, December 9th, 2017, [[https://www.blogto.com/city/2014/01/that\\_time\\_the\\_subway\\_had\\_a\\_moving\\_sidewalk/](https://www.blogto.com/city/2014/01/that_time_the_subway_had_a_moving_sidewalk/)]

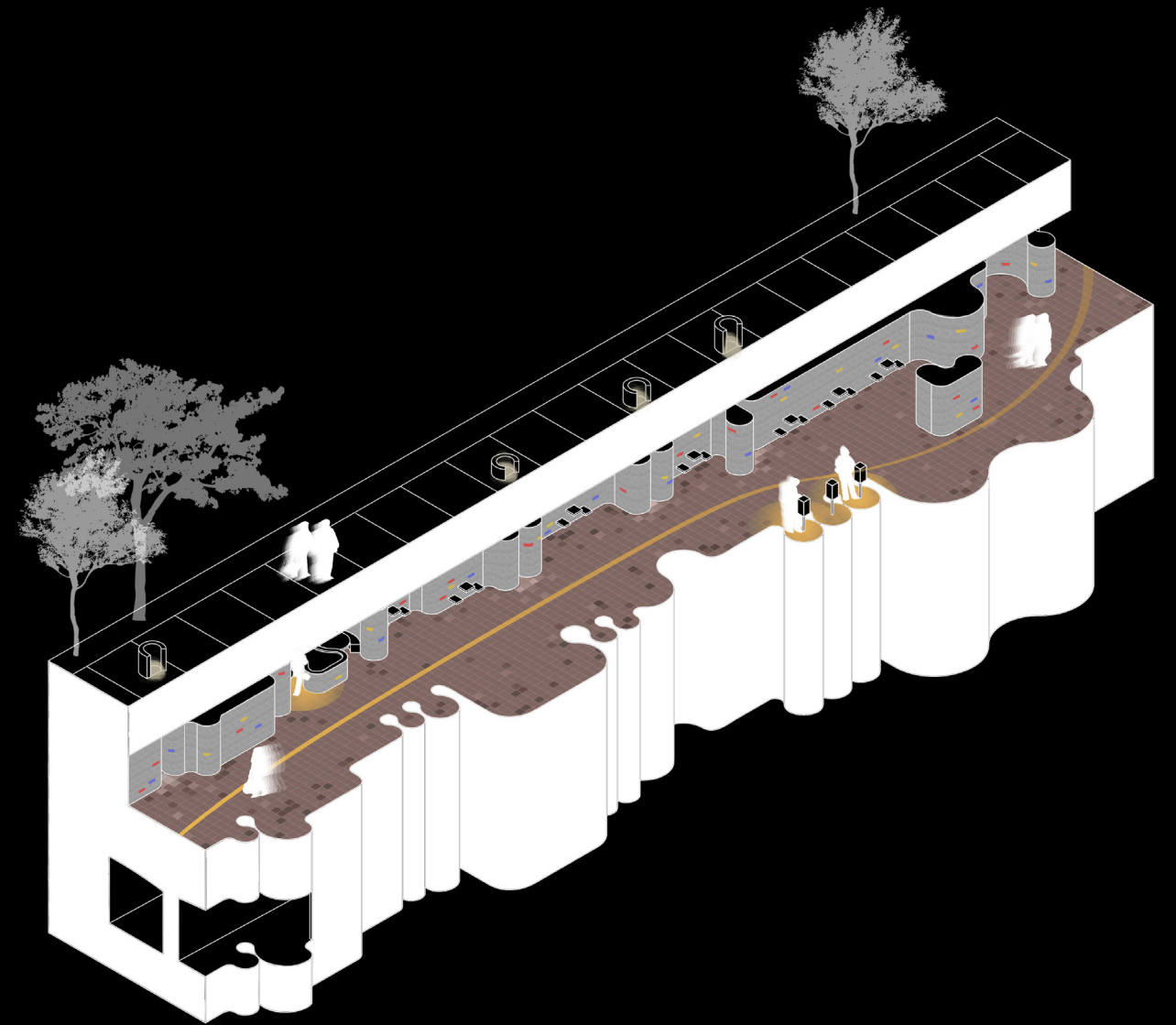


[Fig 46] Above: Spadina Station Living Hallway Proposal. Axonometric Section View, showing morning habitation.





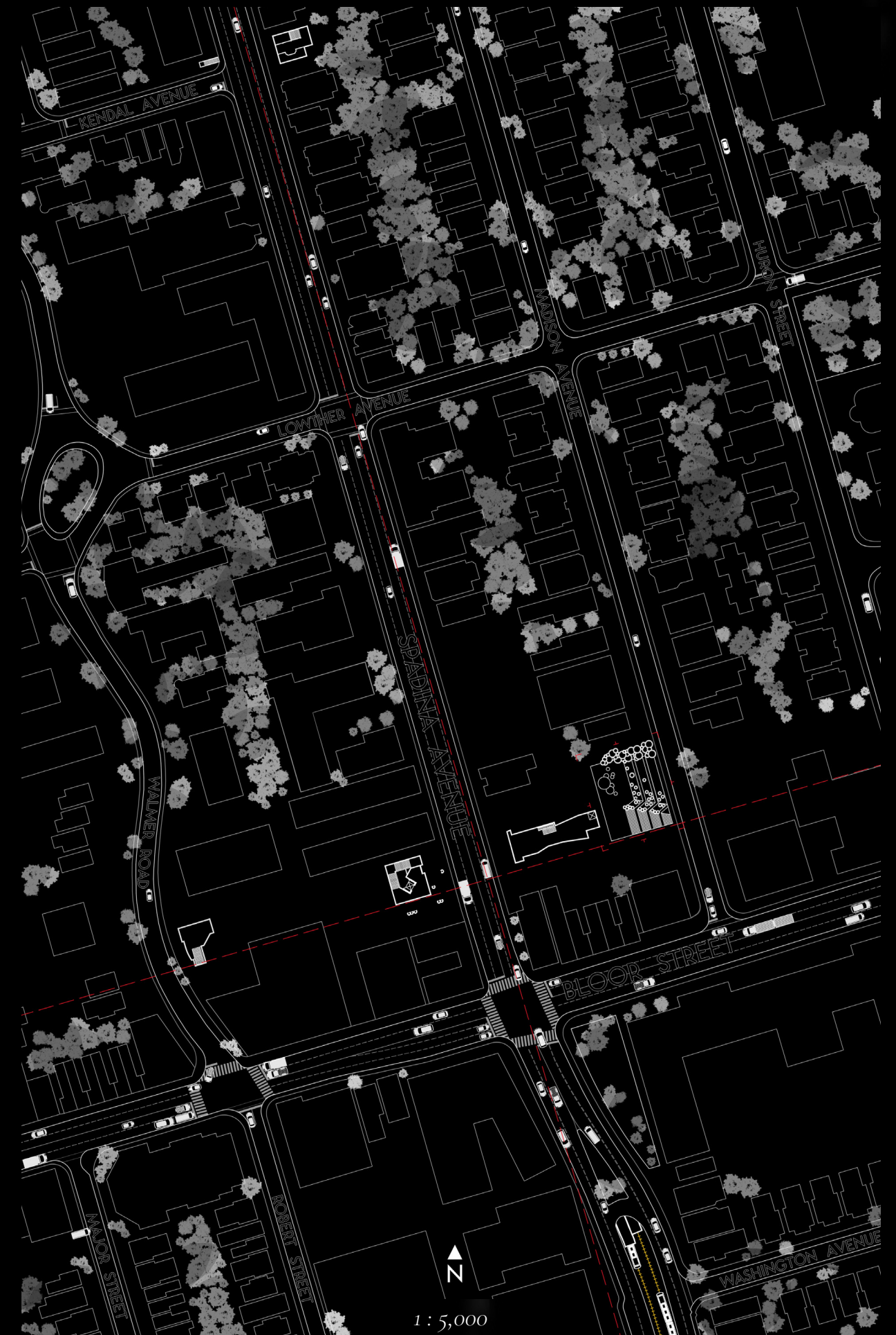
[Fig 47] Above: Spadina Station Living Hallway Proposal. Axonometric Section View, showing afternoon habitation.



[Fig 48] Above: Spadina Station Living Hallway Proposal. Axonometric Section View, showing evening habitation.

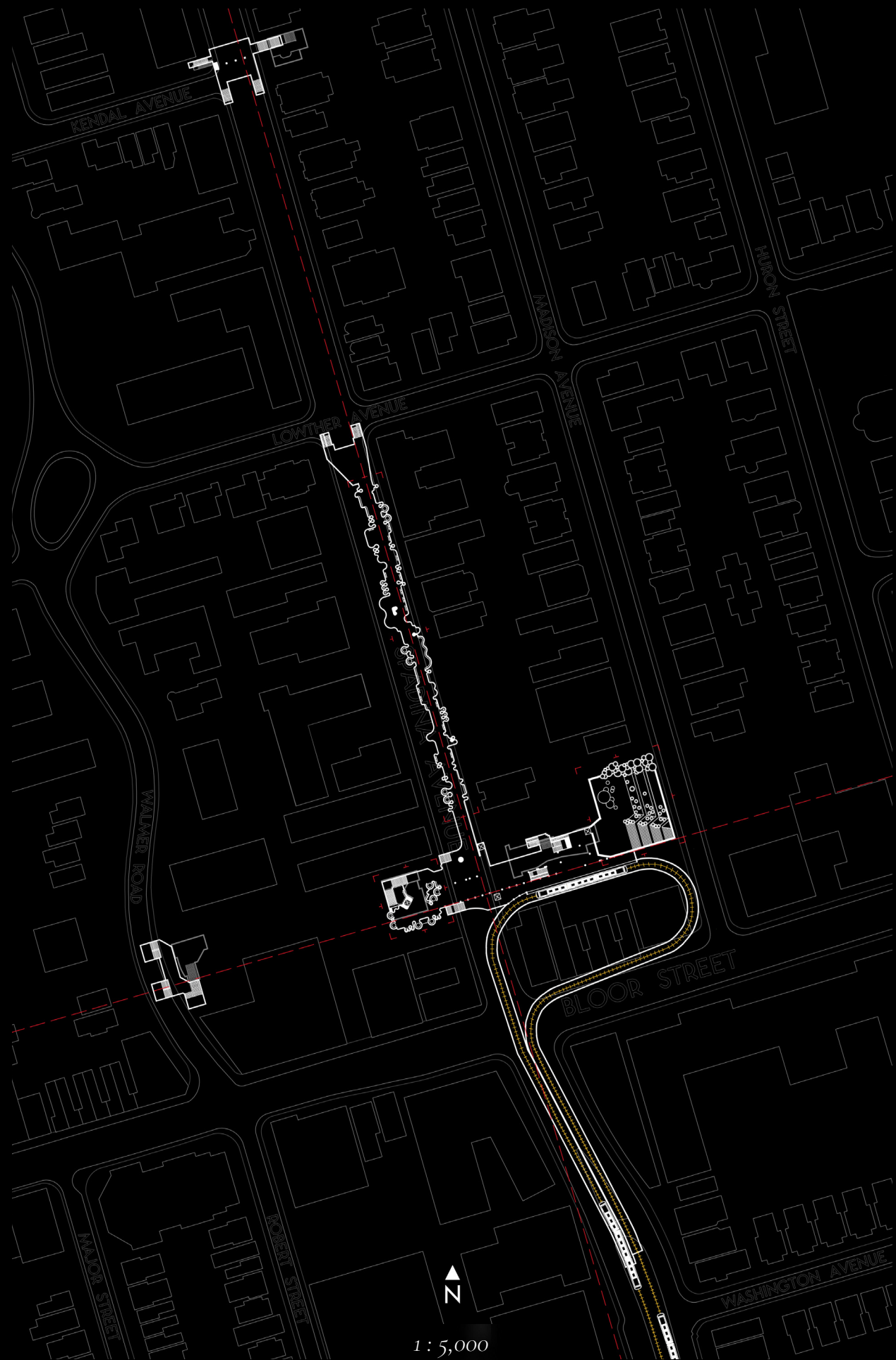
Again, in similar fashion to the public park installation work of van Eyck in the Netherlands and Europe during the 1950's, the design of any of these spaces is meant for subtlety and without any expressed agenda. Of course, the goal of this proposal is to generate heightened social interactions in the public realm through it's infrastructural architecture, but to enforce anything would be to condition and cater the use of the space for a desired and scripted habitation. Rather, with humble and unassuming gestures, such as repetitive concrete pads, chess tables, and benches embedded into the walls, the station can begin to foster, encourage, and stimulate social confluence in these sometimes sterile and impartial spaces, by pushing it's spatial constraints to a more optimal limit of public tolerance.

By addressing the dynamic relationships between the three listed categories prior; eperformance & entrance, market & consumption, and flow & rest, the station can begin to evolve along socially strategic lines and play a significant and active role in the urban life that inhabits it. Some of the gestures, are arguably large; like the amphitheatre entrance for instance. However, even in so large a modification, the purpose becomes a way to extend and exaggerate the existing modes of entrance; thresholds that already exist in the form of staircases and escalators, in a meaningful scale. Similarly, the *dépaneur* and cafeteria style eating vestibules, carve a significant area beneath an entire existing entrance, but, it's program treatment combines the existing confectionary counters into a consolidated place for market exchange, and communal eating. It is through this synthesis of recognition, between the station as an existing social entity, and as an opportunity for future social place making, that the architecture's character can materialize and manifest as a means of empathy, emancipation, and legitimization. In doing so, it can herald the breadth and diversity of the underground, unapologetically, and to it's fullest extent.

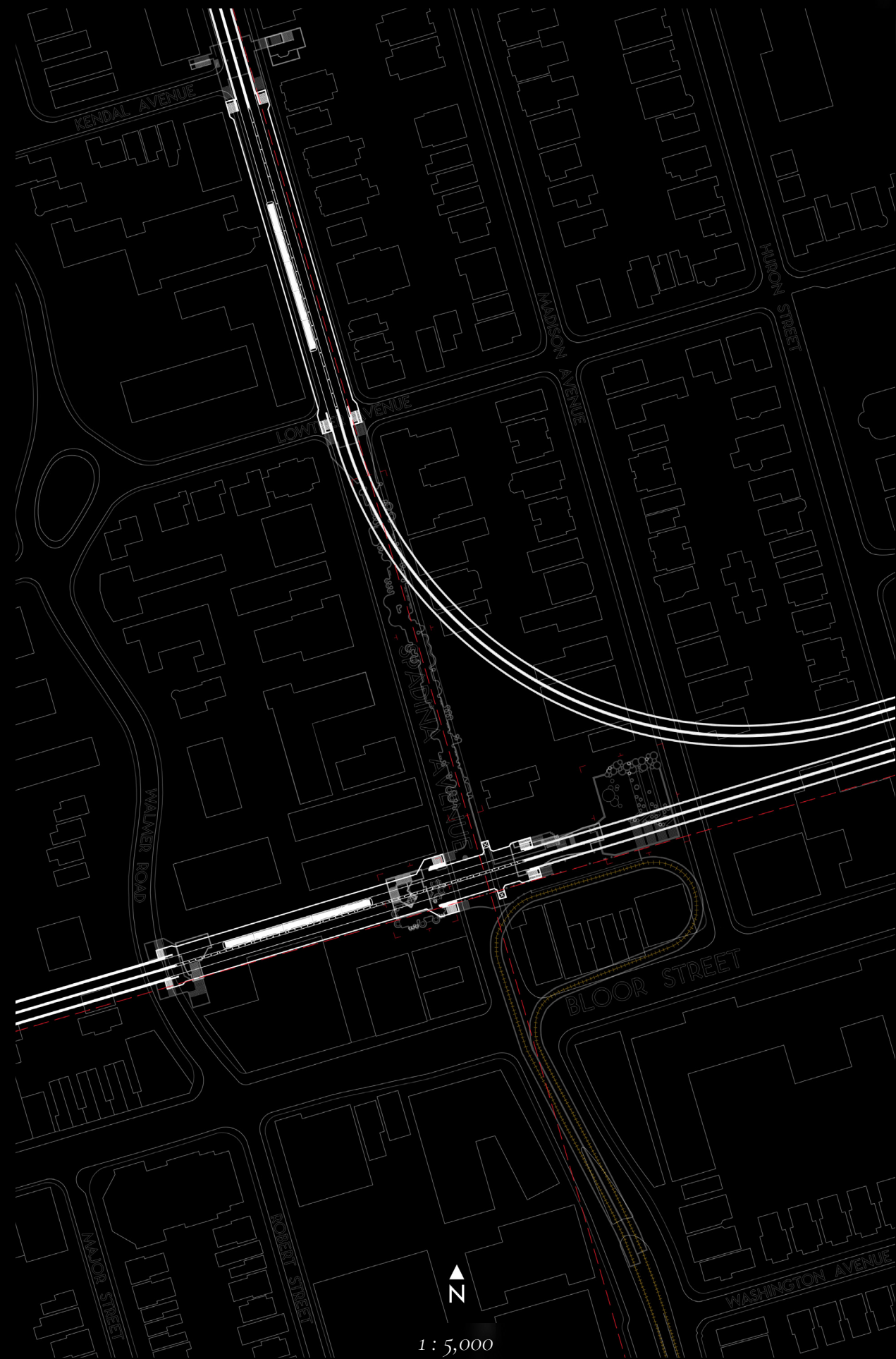


[Fig 49] Above: Spadina Station Proposal Site and Ground Floor Plan.

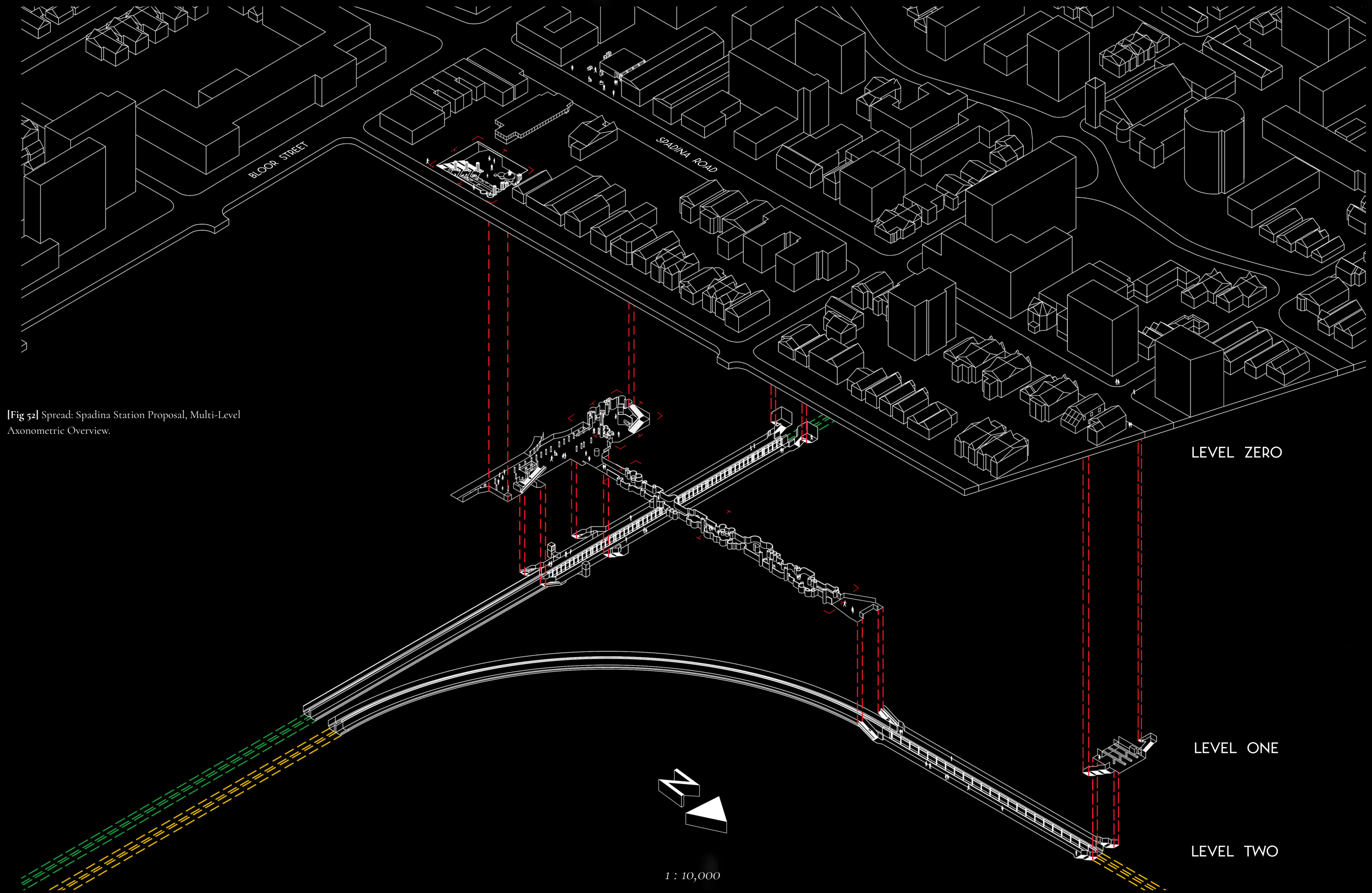




[Fig 50] Above: Spadina Station Proposal Site and Concourse Floor Plan.



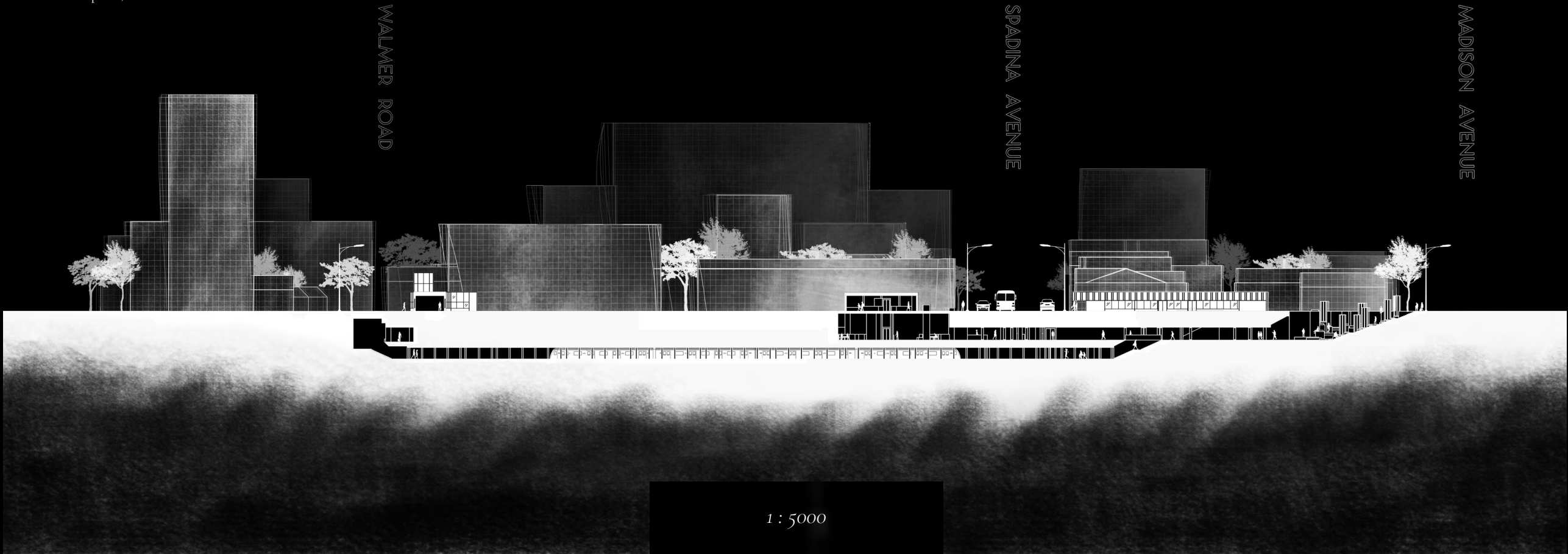
[Fig 51] Above: Spadina Station Proposal Site and Platform Floor Plan.



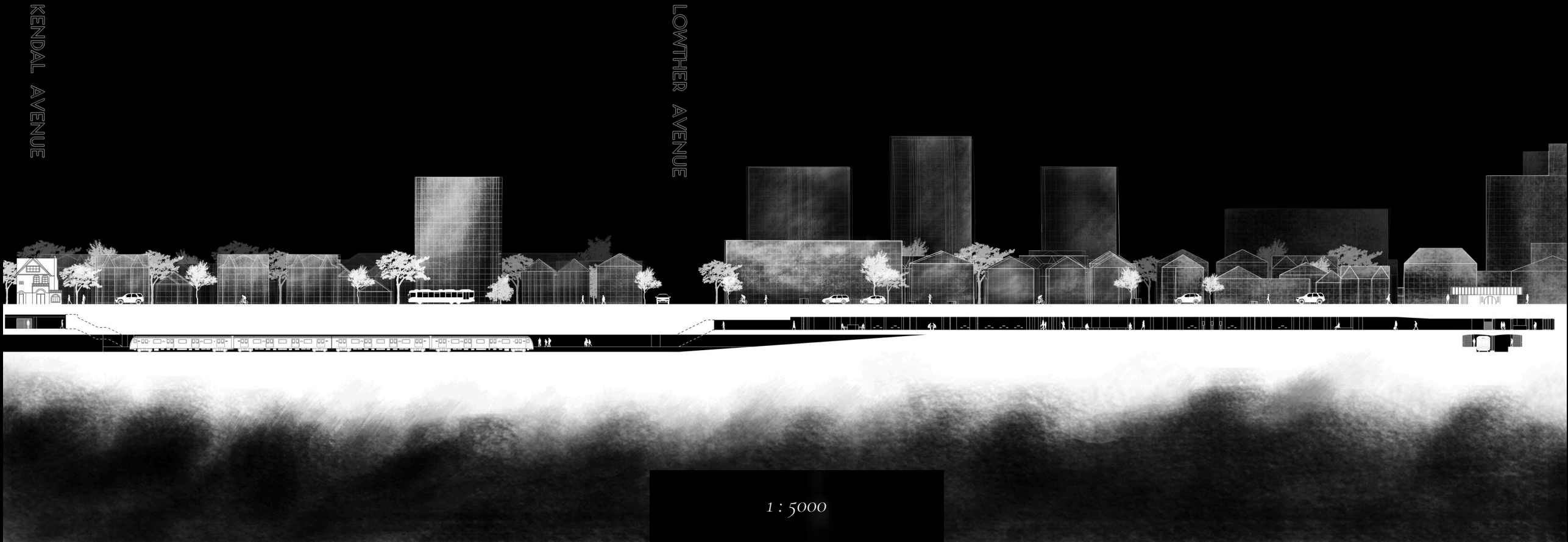
[Fig 52] Spread: Spadina Station Proposal, Multi-Level Axonometric Overview.



[Fig 53] Below: Spadina Station Proposal, East-West Site  
Section.



[Fig 55] Below: Spadina Station Proposal, North-South Site  
Section.



And so the artist screams, into an empty cup,  
He says “...you’re a soulless bunch, but you could still wake  
up!”

And the capitalist, says he’s born to be free.  
He says, “You’re poor, my friends? But you don’t have to be!”

Here’s what we know;  
We don’t know what we got or if we got it,  
And what we had, we already forgot it.  
The race is evidently to the bottom.

We don’t,  
We don’t,  
We don’t know what to say.  
I don’t know what to say.

And so the thumpers preach, both love and hate.  
They say, “You’re naughty filth, but you could still be saved!”  
And the people wait, for the bell to ring.  
They say, “We need a song. We need a song to sing!”

Here’s what we know;  
We don’t know what we got or if we got it,  
And what we had, we already forgot it.  
The race is evidently to the bottom.

We don’t,  
We don’t,  
We don’t know what to say!

Don’t know what it was but we want it back,  
Like every generation will repeat the last.  
Put a halo on a figurehead or photograph,  
Resist a little bit, and then become the man.

Dreaming of a simpler time, it occurs to me;  
That the past is hypothetical fantasy,  
And nostalgia just ain’t what it used to be...

‘Race to the Bottom’, by Dan Mangan, 2016.

So here’s what we know;  
We don’t know what we got or if we got it.  
And what we had, we already forgot it.  
The race is evidently to the bottom

We don’t,  
We don’t,  
We don’t know what to say.  
I don’t know what to say.  
I don’t know what to say.<sup>[81]</sup>

[81] Dan Mangan, “Race to the Bottom”, track 3 on *Unmake*, Toronto: Arts & Records, 2016, Compact Disc.

## CONCLUSION

With each new morning as the sun pulls itself over the horizon and dawn awakens the world’s bustling metropolises, millions daily and billions annually, find themselves travelling through the city’s underground. A labyrinthian network of tunnels and nodes connecting all manner of places and people. Without a doubt, the subway, is the most shared public space in any city landscape that has one operational. It is infra-structural in it’s subsidized existence, but deeply architectural in it’s habitation and effect on the human urban condition.

Yet, it has never fully realized it’s true potential, partly through design negligence, and partly through policy, budgeting, and authoritative dogma. Born as a necessity for maintaining the efficiency of urban industry in the late 19th century, it has never shaken this priority, where function for movement precedes any function for habitation. That the subway’s life, is temporary, and only in service of moving people as workers to and from jobs, and as consumers to develop consolidated economic interests within their proximity. The social good of the subway, as an essential service and public partnership dedicated to

the accessibility of the city for those without the means to scale it as individuals, is not it’s underpinning manifesto. The budget infrastructure of these spaces is always argued over as being too expensive, or not providing enough in return value. Even though the city of Toronto is long overdue for a fifth rapid transit line that runs South and connects expressly with the downtown, several billions of dollars was fast tracked for Northern expansions to developing suburbs, and horizontal expansions along Eglinton Avenue. Both as attempts to jolt investment, instead of prioritizing bottleneck flow, where transportation is most desperately needed.<sup>[82]</sup>

Overall, the city of Toronto’s subway is the most underfunded in all of North America, with an operating budget of just 97 cents per ride, compared to that of Edmonton or Vancouver, which are around twice as high, or Chicago and Los Angeles averaging 2.37\$ US dollars and 4.12\$

[82] Christopher Hume, “Toronto’s new subway extension is beautiful, but it’s not the line we should’ve built”, *Toronto Star*, December 19th, 2017, [https://www.thestar.com/opinion/star-columnists/2017/12/19/torontos-new-subway-extension-is-beautiful-but-its-not-the-line-we-shouldve-built.html]



US dollars respectively.<sup>[83]</sup> To a further end, the current provincial government is crafting plans to upload the management of the TTC to the provincial level, not to provide more public funding in subsidy, but to contract out and privatize the assets and infrastructure of the system and shift operation away from public hands. The argument is that actions like these would end up reducing costs and increasing efficiency. In reality, this will only drive up the cost of use, deterring travellers with higher pay barriers motivated by for-profit bottom lines of crown corporations and private transit firms.<sup>[83]</sup>

It is through this mired and misinformed bureaucracy that the spaces which end up being designed for these projects, suffer the most. They highlight the total excess and waste allocated for these private-public partnerships, with garish and hauntingly empty monument-like buildings, hollow concourses, and sterile platforms. There is no attempt to stimulate, foster, or encourage any type of social habitation or public stage as an addition to the city fabric. The equitability of public transit is as disconnected as ever, pushing for focus-group tested station interaction, heightened and more brutal policing and authoritarianism, and a total mimicking of the actual organic diversity of the city. A diversity reduced and distilled it to a marketable #hashtag, or a boutique retail experience, or a gentrified mixed-use condominium, all in favour of painting over the actual shape of the public's dimensions.

These are the products of late stage urbanism, this proposal attempted to rebel against. To take a snapshot analysis of one station, along

one line, of one subway system, in one city, and consider the scale it presents and offers to anyone who uses it and reprioritize its role in the public realm.

The proposal, more than anything, recognizes that these interactions of sociality will make themselves happen regardless of whatever institution try to smother them, mock them, or control them. There will always be buskers, and homeless people, and skateboarding teens, and curious people watchers, and hungry lunch-goers, and some of us with something to say. This proposal simply asks, what a treatment of architecture could become as a response to these unavoidable faces of the underground. What would the built environment revolve around in program and organization, if any of what was listed above factored into the planning of and construction of any of these spaces? In a way, it is putting the cart ahead of the horse, where the architecture is naturally following the habitation that already exists, rather than ignoring it as most contemporary stations are attempting to do, in their monumentalism.

[82] Ricardo Tranjan, "Uploading the subway will not help Toronto commuters", *Toronto Star*, December 10th, 2018, [<https://www.thestar.com/opinion/contributors/2018/12/10/uploading-the-subway-will-not-help-toronto-commuters.html>]

[83] Ibid.

*The take away of this paper is not meant as a one-to-one checklist of design moves or program additions to be repeated amongst any new station, such as "add amphitheatre" and "add grocery counter". But it is aimed at taking a different and nuanced approach, to include these social points of public urban life in the immediate design for any of these spaces. In order to go forward, we must understand that architecture cannot be passive if it seeks to change the human habitation and social welfare of our cities. Similarly, infrastructure cannot be written off as simple utilitarianism, with single function purposes and no basis in supporting or housing the vast and diverse array of social life that it manages. The social realm is intrinsically tied with the construction and operation of these syntheical spaces, and its reclamation of fostered human habitation must surpass the corroding and consuming nature of private and for-profit development. These views and considerations should shape the public discourse and design surrounding our transit infrastructure. If the public as citizens are the blood of cities, then its subways as civic infrastructure, are its veins.*



[Fig 55] Above: Woman asleep on the Bloor Line, overlooking the misty fall Don Valley. Toronto, 2018.

BIBLIOGRAPHY

AND FURTHER READINGS



WORKS CITED

“A brief history of the Underground,” Transport for London, [https://tfl.gov.uk/corporate/about-tfl/culture-and-heritage/londons-transport-a-history/london-underground/a-brief-history-of-the-underground]

Bateman, Chris. “A Brief History of the Toronto Transit Commission,” BlogTO, August 31st, 2013, [https://www.blogto.com/city/2013/08/a\_brief\_history\_of\_the\_toronto\_transit\_commission/].

Batmanglij, Rostam “When”, track 10 on Half-Light, New York City: Nonesuch Records, 2017, Compact Disc.

Bergel, Egon Ernest. Urban Sociology. New York City, New York: McGraw-Hill Book Company Inc, 1955.

Brown, Austin & Savage, A. & Savage, Max & Yeaton, Sean “Violence”, track 2 on Wide Awake!, New York City: Rough Trade Records, 2017, Compact Disc.

“Building the Moscow Metro, or the brief history of the underground city,” Mos.ru, September 13th, 2017, [https://www.mos.ru/en/news/item/28604073/]

Cimino, Steve. “Defined by Our Infrastructure”, Architect Magazine, December 07, 2017, [https://www.architectmagazine.com/aia-architect/aiafeature/defined-by-our-infrastructure\_o]

Cimino, Steve & Schneidawind, John. “Rebuilding America’s infrastructure starts with thinking locally,” The American Institute of Architects, December 06, 2016, [https://www.aia.org/articles/24506-rebuilding-americas-infrastructure-starts-wi:61]

Department of Economic and Social Affairs, Population Division. The World’s Cities in 2018—Data Booklet (ST/ESA/ SER.A/417), New York City: United Nations, 2018.

English, Jonathan. “Why Did America Give Up On Mass Transit? (Don’t Blame Cars),” CityLab, August 31st, 2018, [https://www.citylab.com/transportation/2018/08/how-america-killed-transit/568825/]

Flack, Derek. “That time the Toronto subway had a moving sidewalk”, BlogTO, December 9th, 2017, [https://www.blogto.com/city/2014/01/that\_time\_the\_subway\_had\_a\_moving\_sidewalk/]

Grescoe, Taras. “Secrets of The Paris Metro,” New York Times, November 19th, 2000, [https://www.nytimes.com/2000/11/19/travel/secrets-of-the-paris-metro.html]

Hume, Christopher. “Toronto’s new subway extension is beautiful, but it’s not the line we should’ve built,” Toronto Star, December 19th, 2017, [https://www.thestar.com/opinion/star-columnists/2017/12/19/torontos-new-subway-extension-is-beautiful-but-its-not-the-line-we-shouldve-built.html]

Jaffe, Eric. “The Fascinating History of New York and Boston’s Race to Build a Subway,” CityLab, February 24th, 2014, [https://www.citylab.com/transportation/2014/02/fascinating-history-new-york-and-bos-tons-race-build-first-subway/8462/]

Kabango, Shadrach “Another Year (featuring Ian Kamau & Eternia”, track 12 on A Short Story About a War, Toronto: Secret City Records, 2017, Compact Disc.

Kennedy, Randy. “A Day in the Subway, as It Rolls Up a Century,” New York Times. (New York City, NY), October 27th, 2004, [https://www.nytimes.com/2004/10/27/nyregion/a-day-in-the-subway-as-it-rolls-up-a-century.html]

Lofland, Lyn H. The Public Realm: Exploring the City’s Quintessential Social Territory. New York City, New York: Walter de Gruyter Inc., 1998.

Low, Setha M. On the Plaza: The Politics of Public Space and Culture. Austin, Texas: University of Texas Press, 2000.

Mangan, Dan “Race to the Bottom”, track 3 on Unmake, Toronto: Arts & Records, 2016, Compact Disc.

Martin, Alex “Ubiquitous Tokyo subways moving the daily masses,” Japan Times, August 3rd, 2010, [https://www.japantimes.co.jp/news/2010/08/03/reference/ubiquitous-tokyo-subways-moving-the-daily-masses/#.XMlco5NKj6A]

Martínez, Fernando Guillén. The Tower and the Town Square: An Essay on Interpreting America. Madrid, Spain: Ediciones Culture Hispánica, 1958.

McGahan, Peter. Urban Sociology in Canada. Toronto, Ontario: Buttersworth & Co, 1982.

Seewang, Laila, “Skeleton Forms: The Architecture of Infrastructure,” Scenario Journal, Scenario 03: Rethinking Infrastructure, Spring, 2013.

Moffat, Robert. “MOD TORONTO: Art and architecture on the Spadina subway”, Spacing Magazine, July 3rd, 2013, [http://spacing.ca/toronto/2013/07/03/mod-toronto-art-and-architecture-on-the-spadi-na-subway/]

Murphy, Dean E. “Judge, Clearly, Not Amused, Sentences a Subway Imposter”, New York Times, March 30th, 2001, [https://www.nytimes.com/2001/03/30/nyregion/judge-clearly-not-amused-sentences-a-subway-impostor.html?module=inline]

Myron, Cynthia Dagnal. “Off the Rails: Train Man Darius McCollum’s Wild Ride”, Huffington Post, April 6th, 2016, Updated December 6th, 2017, [https://www.huffingtonpost.com/cynthia-dagnalmyron/off-the-rails-train-man-d\_b\_9611630.html]

O’Keeffe, Zachary P. & Sullivan, Christopher M. “Does more policing lead to less crime — or just more racial resentment?”, Washington Post, July 25th, 2016, [https://www.washingtonpost.com/news/mon-key-cage/wp/2016/07/25/does-more-policing-lead-to-less-crime-or-just-more-racial-resentment/?utm\_term=.e9101aff81a3]

Roberts, Sam. “100 Years of Grandeur: The Birth of Grand Central Terminal,” New York Times, January 18th, 2013, [https://www.nytimes.com/2013/01/20/nyregion/the-birth-of-grand-central-terminal-100-years-later.html]

Saul, Emily. “Transit bandit ordered locked up at secure psychiatric”, New York Post, October 5th, 2018, [https://nypost.com/2018/10/05/transit-bandit-ordered-locked-up-at-secure-psychiatric-facility/]

Saxon, Wolfgang. “RIDERS UNAWARE AS BOY, 15, OPERATES IND TRAIN”, New York Times, January 31st, 1981, [https://www.nytimes.com/1981/01/31/nyregion/riders-unaware-as-boy-15-operates-ind-train.html]

Sennett, Richard. The Fall of Public Man; On the Social Psychology of Capitalism, New York City: Random House Inc, 1974.

Shaw, Paul. Helvetica and the New York City Subway System: The True (Maybe) Story. Cambridge, Massachusetts: MIT Press, 2011.

Statler-Pace, Sunny. Underground Movements: Modern Culture on the New York City Subway. Amherst, Massachusetts: University of Massachusetts Press, 2013.

Tice, James. “A Digital Extension of a Roman Cartographic Classic: The 1748 Nolli Map and its legacy”. Journal18, Issue 5: Coordinates, Spring, 2018.

Toronto Transit Commission. Wheels of Progress; 5th Edition. Toronto, Ontario: Toronto Transportation Commission Ltd, 1953.

Toronto Transit Commission, Transit Planning. Subway Ridership - 2018. Toronto: Toronto Transit Commission, 2018.

“The Boy Who Loves Trains”, #FreeDariusNow, accessed December 3rd, 2018, [https://www.freedariusnow.com/darius-mccollum/]

The Canadian Press. “Canada Census 2016: Toronto growth well above the already high national average,” National Post, February 8th, 2017, [https://nationalpost.com/news/toronto/canada-census-2016-to-ronto-growth-well-above-the-already-high-national-average]

Tranjan, Ricardo. “Uploading the subway will not help Toronto commuters”, Toronto Star, December 10th, 2018, [https://www.thestar.com/opinion/contributors/2018/12/10/uploading-the-subway-will-not-help-toronto-commuters.html]

Union Internationale de Transports Publics, World Metro Figures 2018, Brussels: UITP, 2018.

Villanti, Benjamin “Subway Lessons from Madird,” City Journal, Infrastructure and energy, Spring 2010.

Wainwright, Oliver. “Grand plans: how the simple planning diagram has shaped our cities”. The Guardian. November 22, 2012. [https://www.theguardian.com/artanddesign/architecture-design-blog/2012/nov/22/planning-diagrams-urban-design-cities]

Walker, Jarrett. Human Transit: How Clearer Thinking about Public Transit Can Enrich Our Communities and Our Lives. Washington, D.C: Island Press, 2011.

Williamson, Ronald F. An Illustrated History of It’s First 12,000 Years; Toronto. Toronto, Ontario: James Lorimer & Company Ltd, 2008.



## FURTHER READINGS

Jacobs, Jane. The Death and Life of Great American Cities. New York City, New York: Random House Inc, 1961.

Clammer, John. Contemporary Urban Japan; A Sociology of Consumption. Oxford, England: Blackwell Publishers Ltd, 1997.

Sewell, John. The Shape of the City; Toronto Struggles with Modern Planning. Toronto, Ontario: University of Toronto Press Incorporated, 1993.

Lefaivre, Liane & Alexander Tzonis. Aldo van Eyck; Humanist Rebel - Inbetweening in a Postwar World. Rotterdam, Netherlands: 010 Publishers, 1999.

Seymour Jr, Whitney North. Small Urban Spaces; The Philosophy, Design, Sociology, and Politics of Vest-Pocket Parks and Other Small Urban Open Spaces. New York City, New York: New York University Press, 1969.

Baine, Richard P. & McMurray, A. Lynn. Toronto: An Urban Study (Third Edition). Toronto, Ontario: Irwin Publishing Ltd, 1984.

Koolhaas, Rem. Delirious New York. New York City, New York: The Monacelli Press, 1994.

Donegan, Rosemary. Spadina Avenue. Vancouver, British Columbia: Douglas & McIntyre Ltd, 1985.

Rykwert, Joseph. The Idea of Town. London, England: Faber & Faber Publishing Ltd, 2006.

Freedman, Alisa. Tokyo in Transit: Japanese Culture on the Rails and Road. Stanford, California: Stanford University Press, 2011.

Habermas, Jürgen. Modern and Postmodern Architecture, in Critical Theory and Public Life. edited by John Forrester. Cambridge, Massachusetts: MIT University Press, 1985.





